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*Monthly*

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# LABOR

*Review*

VOL. 54 • NO. 5

## IN THIS ISSUE

Working Hours in War Production Plants

Extent of Collective Bargaining

Productivity and Unit Labor Cost in  
Manufacturing

Occupancy of Privately Financed Houses  
in Bridgeport

As a measure of wartime economy the Monthly Labor Review, beginning with this issue, is being printed "solid," i. e., without spacing between lines. It is hoped that consideration of the very substantial saving in paper will offset, for the reader, the slight loss of attractiveness and readability.

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

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# MONTHLY **LABOR REVIEW**

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

\*\*\*\*\* + HUGH S. HANNA, EDITOR + \*\*\*\*\*

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## This Issue in Brief

### *Working hours in war production plants.*

In more than half of the war production plants surveyed by the Bureau of Labor Statistics, workers averaged more than 48 hours per week in February. The entire machine-tool industry averaged 55 hours. Nine plants were averaging more than 70 hours per week per wage earner. Sunday operations have been confined chiefly to continuous-process industries. Marked progress has been made in most war industries in moving toward continuous operation to increase output. Exclusive of the major continuous-process industries, about 40 percent of the war workers are now on extra shifts, as compared with approximately 25 percent in December 1940. Page 1061.

### *Extent of collective bargaining in the United States.*

At the beginning of 1942 about 55 percent of all workers in manufacturing, mining, building construction, and transportation were employed under union agreements. However, less than 10 percent of those engaged in wholesale and retail trade, personal service, clerical, technical, and professional occupations were covered by such agreements. Since this latter group includes about 40 percent of all persons who could be considered as potential union members, the total proportion of all workers employed under union agreements would be about 30 percent. The total union membership in January 1942 was approximately 11,000,000. Page 1066.

### *Increased productivity of labor, 1929-41.*

In all manufacturing industries combined, output per man-hour increased 20 percent between 1929 and 1935 and nearly as much again between 1935 and 1941. Even during the period of transition to a war economy after 1939, man-hour output continued to rise and these increases were so substantial that the labor cost per unit of output in 1941, in all manufacturing industries combined, was more than 10 percent below the 1929 level in spite of wage advances. Page 1071.

### *Joint production committees in Great Britain.*

Government ordnance plants in Great Britain have taken the lead in establishing joint production advisory committees, representing management and labor, as a means of further increasing output. Extension of this type of machinery in private industry will be on a voluntary basis. It has been advocated by the British Government and organized labor. The Minister of Labor has cautioned industry, however, against creating a number of different committees for separate purposes. Adoption of production committees is a natural outgrowth of the policy followed in the present war whereby labor representatives participate in the work of numerous governmental bodies. Page 1088.

### *Wages in the agricultural-machinery industry.*

According to a study made by the Bureau of Labor Statistics in February and March 1942, average hourly earnings in the agricultural-machinery industry were 84.1 cents for the plants covered, but there were wide differences in average earnings as between the North and the South and as between plants of different sizes. Page 1177.

### *Unused manpower in Pennsylvania anthracite area.*

The Pennsylvania anthracite area is essentially an area of one industry. Thus, the war-production program has had very little effect in absorbing in other employments the thousands of mine workers thrown out of work by the sharp

decline in the demand for anthracite during the past decade or more. A special commission, created by Congress, has made recommendations designed to relieve the serious unemployment situation, and also to make the idle manpower available for defense industries. Page 1101.

### *Few new privately built homes for rent.*

A survey of new, privately financed housing in Bridgeport showed that of the completed homes started during the year ending September 30, 1941, and occupied in February 1942, only 13 percent were rented; the rest had been sold. Furthermore, practically all of the completed units which were vacant were being held for owner-occupancy or for sale. Page 1073.

### *Strikes in 1941.*

As is usual in a year of rapidly expanding industrial activity, increasing employment, and rapidly rising living costs, strike activity during the first 11 months of 1941 was at a relatively high level. With the outbreak of war on December 7 several strikes then in progress were immediately called off and several threatened strikes, even where strike votes had been taken, were canceled. One employed worker out of every 12 was involved in a strike at some time during the year. This proportion (8.4 percent) was exactly the same in 1941 as in 1916, the year preceding the entry of the United States into the first World War. Both the numbers of workers employed and the numbers involved in strikes were, naturally, much larger in 1941 than in 1916. Page 1107.



# MONTHLY LABOR REVIEW

FOR MAY 1942

## WORKING HOURS IN WAR PRODUCTION PLANTS, FEBRUARY 1942 <sup>1</sup>

### *Summary*

IN 14 industries producing war materials, surveyed by the Bureau of Labor Statistics, the workers in more than half of the plants studied averaged over 48 hours per week in February 1942.

Working hours in the machine-tool industry averaged 55 hours per week, and in nine plants they averaged more than 70 hours per week.

Sunday operations have been confined chiefly to the continuous-process industries. Of the iron and steel mills surveyed, 36 percent had more than 50 percent of their wage earners at work on Sunday. Only 16 percent of the plants in 14 other war industries as a whole had such crews on Sunday work.

Marked progress has been made in most war industries in moving toward continuous operation to increase output. Exclusive of the major continuous-process industries, about 40 percent of the war workers are now on extra shifts, as compared with approximately 25 percent in December 1940.

Examination of the situation in the various industries studied leads to the belief that—

1. On the whole, it will not be possible to increase production greatly in the war industries by further increases in the length of scheduled shifts for individual workers.

2. In some plants and in some industries it should be possible to increase orders or the flow of materials sufficiently to permit the scheduling of 48-hour shifts where schedules now call for 40 or 44 hours per week. This possibility of increased production is greater in the supply industries (like electrical apparatus and supplies) that have not been fully geared to war production than it is in the munitions industries. Even some of the munitions industries have been forced for considerable periods of time to cut back a 48-hour schedule to a 40-hour schedule.

3. For the most part expansion of production with existing plant facilities requires the addition of more workers. This is generally possible, provided the plant has a vigorous training and up-grading program. In most plants employment and production on the evening or night shift can be greatly expanded. In almost all plants there is an opportunity to develop a relief shift to permit 7-day operation of the plant with workers on 6-day schedules.

<sup>1</sup> Summary of special report (giving detailed data by industries), prepared by Harrison F. Houghton under the direction of Lewis E. Talbert.

### *Length of Workweek*

Individual wage earners in more than half of the plants in the war industries covered by the Bureau's study averaged 48 hours or more of work per week in February 1942. In order to attain an average of even 46 hours of actual working time it is necessary to schedule 48 hours of work per worker, because of ordinary losses from absence, part-time work, break-downs, and labor turn-over. It appears, therefore, that about two-thirds of the plants were operating with schedules of 48 hours or more. More than a third reported actual average working time of 52 hours or more. In 1 out of every 10 plants the average was 60 hours or more per worker, and a few establishments had scheduled more than 70 hours per worker.

Weeks of 48, 50, and 55 hours are found especially in such industries as those making machine tools and accessories, engines, guns, and aircraft, and in shipyards. In only 9 of the 435 establishments surveyed in these industries did the wage earners average 40 hours or less. By far the longest hours were worked in the machine-tool industry, where, in 22 percent of the 214 establishments surveyed, the wage earners averaged 60 hours of work or more per week. In other war industries comparatively few plants schedule such long hours for their wage earners; averages of 60 hours or more per worker were reported for only 32 of the 637 establishments surveyed.

While weekly hours have been increased since the United States entered the war, many industries have long been operating on an overtime basis. Workers in the machine-tool industry have averaged more than 40 hours per week since before the war broke out in Europe in 1939. They averaged in excess of 50 hours per week for a full year prior to the attack on Pearl Harbor, and began 1942 with an average of 55 hours per week per wage earner. The engine industry, consistently working more than 40 hours per week since 1939, exceeded 45 hours per week a full year before Pearl Harbor, and in February 1942 exceeded the 50-hour mark. Virtually the same is true for aircraft manufacture, which has reached an industry-wide average of 48 hours per week. Private shipyards averaged 43 hours per week in December 1940, 46 hours in December 1941, and 48 hours in February 1942.

### *Prevalence of Overtime*

There was a sharp increase in overtime in war industries between December 1941 and January 1942. In those industries that are under pressure of war orders, hours have been lengthened to include substantial amounts of overtime. In contrast, in the industries producing nondurable goods, although there has been an increase in average hours, owing to the virtual elimination of part-time work and to persistent overtime by some plants, most workers in these industries are still on a 40-hour schedule.

*Continuous and noncontinuous industries.*—In analyzing the length of the workweek in war industries, distinction should be drawn between those in which the technical process requires continuous operation and those which, under normal peacetime conditions, have tended to operate a single shift for 5 days a week. In January 1942 the Bureau surveyed certain continuous-process industries—blast furnaces, steel works and rolling mills, chemical plants, and establish-

ments engaged in smelting and refining—as well as the 14 war industries surveyed in February.

In the iron and steel industry, blast furnaces and steel works operate for 24 hours a day. The rolling mills may close down for 1 or 2 days a week, but the basic processes of making pig iron and steel ingots go on continuously week after week until the furnace is closed for relining. The blast-furnace and steel-works departments of the industry have operated for many years with three 8-hour shifts each day and have used a fourth shift in order to achieve 7 continuous days of operation. It has not been necessary for this industry to resort to general overtime in order to achieve maximum plant utilization. In January 1942, therefore, nearly two-fifths of the blast furnaces, steel works, and rolling mills operated with a workweek of 40 hours or less. As rolling mills have increased their rate of operations and in some cases have gone to a 7-day workweek, some of them have adopted the 4-shift practice of the blast furnaces and steel works. Others have increased the length of the shift schedules from 40 to 48 hours per week. In January 1942, however, in only about 1 plant in 5, were the individual workers averaging more than 48 hours; and in only 1 plant in 9 were they averaging 52 hours or more. In a fairly considerable number of mills the workers were averaging slightly more than 40 hours. This reflects a 40-hour week for most departments, but with a few on a 48-hour schedule.

The noncontinuous-process industries faced an entirely different problem when the war demands required full utilization of plant capacity. The continuous-process industries had a supervisory force and skilled workers as a nucleus for three or four shift operations. They could add workers to these well-established shifts. The noncontinuous-process industries had normally operated a second shift only in certain bottleneck departments. To develop full production on three shifts for 7 days a week they were forced to develop a core of supervisory and skilled workers to man the extra shifts. They were limited in the development of second and third shifts not only by the acute shortage of such workers in the metal-working trades, but also by the fact that they were unfamiliar with the practice of continuous operation and their productive equipment was not always balanced with respect to continuous operation of all departments. These factors forced them to lengthen the hours of workers already employed in order to expand output. In the machine-tool industry, for example, by January 1942 the overwhelming majority of workers were working 48 hours or more per week.

### *Shift Operations*

Substantial progress has been made in most war industries in moving toward continuous operation as a means of increasing output. The Bureau's first survey of shift operations, in December 1940, revealed that in a selected group of leading defense industries only about one-quarter of the wage earners were working on second or third shifts. That study was confined chiefly to the larger plants, which had the most defense work. The latest survey, covering a much greater number of plants, reveals that, excluding the major continuous-process industries, about 40 percent of the wage earners are on evening and night shifts.



Some progress toward complete plant utilization has been made in the manufacture of machine tools. In December 1940, that industry was still predominantly a one-shift industry. Some plants had well-developed second and third shifts, but the majority were using the evening and night shifts only as a means of breaking bottlenecks. For the industry as a whole, 3 workers were employed on the day shift for every worker on the other two shifts combined. By January 1942, the ratio was 2 to 1. There is still room for further expansion of production in this industry without adding extensively to equipment or floor space. Generally speaking, it is possible to employ at least as many workers on the evening and night shifts in combination as on the day shift. If this were done, it would add about one-third to the man-hours worked per week. The industry is already using most of its individual workers for as many hours as possible without seriously impairing efficiency. However, it is still the exceptional plant that has even 40 percent of its force on the second and third shifts.

In the other industries studied the use of shifts varies markedly not only from industry to industry but also from plant to plant. In the iron and steel industry, where the continuous process is a technical necessity, 75 percent of the mills had more than 40 percent of their respective work forces on evening and night shifts in January 1942. The aircraft industry, where the assembly-line technique of the automobile industry has been adapted to the production of planes, has been the most progressive, adopting a continuous operating schedule closely approximating the pattern in the iron and steel industry. Nearly 70 percent of the aircraft plants are working 40 percent or more of their respective forces on evening and night shifts. Ordnance plants have also made strides toward continuous operation.

### *Sunday Operations*

In the same sense that small crews on the evening and night shifts represent a failure to utilize productive facilities to the maximum, the failure to schedule Sunday operation represents idle production facilities. In the Bureau's survey, Sunday work was found to be the rule in industries where a chemical or physical process requires continuous operation. Thus, more than half the smelting and refining plants had a work force on Sunday at least half as large as the force on weekdays, and nearly three-quarters of the plants had at least two-fifths as many as on weekdays. Similarly, blast furnaces, steel works, and rolling mills, and the chemical industries tended to have a high proportion of workers on Sundays. Yet these are industries that have relatively low average hours per worker per week. Sunday becomes a regular workday through the development of a rotating four-shift system or by the use of a relief shift.

Industries which have normally operated 1 shift a day for 5 days find it difficult to achieve 7-day operation. It is apparently easier to develop a regular second or third shift than it is to develop a rotating schedule that will make Sunday into a workday. The continuous-process industries cover both Saturday and Sunday work through the use of the fourth shift. The noncontinuous-process industries almost invariably extend the work schedule from 5 to 6 days in order to obtain Saturday production. It then may appear to be a doubtful economy to introduce a four-shift system merely



to add 1 working day. If Sunday work is necessary, they attempt to achieve it by working individual workers for 7 continuous days. General testimony of work managers is that this tends to excessive fatigue and absenteeism. Where Sunday operation as the seventh day of work for the individual is a regular event, it is not in fact a means of getting continuous operation, but of getting work done on Sunday instead of on some weekday.

## EXTENT OF COLLECTIVE BARGAINING AT BEGINNING OF 1942

By FLORENCE PETERSON, *Bureau of Labor Statistics*

THE basic strength of the revived labor movement which had started during the NRA period and continued with accelerated growth through 1937 was attested by the way in which unions were able to retain the loyalty of their newly acquired members during the following year's business recession and to start expanding immediately upon the upturn of business in the middle of 1939. At the beginning of 1942 practically every union was able to report substantial gains in membership. Unions affiliated with the American Federation of Labor reported a dues-paying membership of over 4,800,000 with an additional estimated 500,000 not on a dues-paying basis. The Congress of Industrial Organizations reported a membership of 5,000,000. In addition, there were over 800,000 members in unaffiliated unions, chiefly railroad, telephone, and Government workers. Union membership by January 1942 had reached a total of approximately 11,000,000, representing about one-third of the total wage earners and salaried employees in the United States.

### *Expansion of Collective Bargaining in 1941*

Concurrent with the growth in union membership were notable extensions in the number of workers covered by collective-bargaining relationships. This was due both to expanded employment during 1941 in already organized plants and occupations and to the establishment of collective bargaining for the first time in hitherto unorganized areas.

About 55 percent of all workers in manufacturing, mining, building construction, and transportation were employed under union agreements at the end of 1941. However, less than 10 percent of those engaged in wholesale and retail trade, personal service, clerical, technical, and professional occupations had the protection of such agreements. Since this latter group of occupations includes about 40 percent of all persons who could be considered as potential union members (that is, not self-employed or supervisors), the relatively small amount of organization in these occupations reduced the total proportion of all employees covered by union agreements to about 30 percent.

The extension of collective bargaining during 1941 was in many instances a result of the renewal or completion of the organizing campaigns begun in 1937. The earlier efforts had resulted in agreements with a substantial number of employers in many industries, but had failed in some areas or with a few of the larger employers. The outstanding example was the automobile industry where all the large companies but the Ford Motor Co. had signed union agreements following the 1937 organizing drive. After several years of intermittent bitter strikes, National Labor Relations Board's charges of unfair labor practices, and court suits, the Ford Motor Co. in June 1941 signed a union-shop agreement with the C. I. O. United Automobile, Aircraft and Agricultural Implement Workers of America.

The Goodyear Rubber Co., which had never had a written agreement, although it had negotiated with the union informally, signed its first agreement in October, 1941, the last of the larger rubber companies to do so. The Westinghouse Co. also signed for the first time and, toward the close of the year, the International Harvester Co. began negotiations for several of its plants. Several additional plants of the Aluminum Corporation of America, as well as additional offices of the Western Union Telegraph Co. came under union agreements during 1941. In the case of most of these large corporations, agreements followed in the wake of court decisions upholding orders by the National Labor Relations Board to dissolve employee-representation plans and enter into negotiations with bona fide unions.

The prolonged bitter strikes against the "little steel" companies in 1937 failed in most cases to gain union recognition. Following the strikes, numerous unfair labor charges were filed with the National Labor Relations Board, most of which the Board found to exist and the courts sustained. Meanwhile, the Steel Workers' Organizing Committee continued its campaigns and, by the close of 1941, was negotiating with the "little steel" companies for master agreements to cover most of their employees. The only other major steel firms not under S. W. O. C. agreements at the close of the year were The American Rolling Mill Co. and The Weirton Steel Co.

Collective bargaining in the aircraft industry was almost nonexistent prior to the beginning of the defense program. During 1940 and 1941 both the A. F. of L. International Association of Machinists and the C. I. O. United Automobile, Aircraft and Agricultural Implement Workers carried on vigorous organization drives, with the result that a large majority of the aircraft workers are now under union agreements.

For many years the A. F. of L. metal-trades unions, and later the C. I. O. Marine and Shipbuilding Workers, had had agreements with numbers of the shipbuilding companies, although some of the largest companies remained nonunion. As a result, partly of the increased employment in yards already under agreements and partly of the negotiation of agreements with previously nonunion companies, the number of shipyard workers under agreement more than doubled in 1941. Among the major newly organized yards were the San Francisco yard of the Bethlehem Shipbuilding Corporation, the Newport News Shipbuilding & Dry Dock Co., the Electric Boat Co., Consolidated Steel Corporation, and the Gulf Shipbuilding Corporation.

Largely owing to the expansion in employment, union agreement coverage increased in the machinery, chemical, lumber, and non-ferrous-metal-mining industries. In each were some large companies which signed agreements for the first time—the Dow Chemical, Michigan Alkali, Diamond Alkali, and American Potash & Chemical, in the chemical industry; The Phelps-Dodge Corporation, one of the leading metal producers; and the Pratt & Whitney and the Van Norman machine-tool companies.

Although most of the building-trades workers in urban areas have been organized for many years, during the defense construction period collective bargaining was extended into many communities where the industry had not been organized previously. Substantial numbers of bus and truck drivers, bakers, and meat-packing employees came under agreement for the first time in 1941. While many new

*Proportion of Wage Earners Under Written Union Agreements in 1941*  
MANUFACTURING INDUSTRIES

Almost entirely under written agreements	Large proportion under written agreements	About half under written agreements	Moderate proportion under written agreements	Almost entirely without written agreements
<p>Automobiles, parts, trailers.</p> <p>Breweries.</p> <p>Clothing—men's, including furnishings and excluding hats and caps.</p> <p>Furs and fur garments.</p> <p>Glass—flat.</p>	<p>Aircraft.</p> <p>Aluminum—smelting, refining, fabricating.</p> <p>Blast furnaces, steel works, rolling mills.</p> <p>Clothing—women's.</p> <p>Electrical machinery, including equipment and appliances.</p> <p>Glass containers.</p> <p>Machinery, excluding agricultural and electrical machinery and machine tools.</p> <p>Millinery and hats.</p> <p>Newspaper printing and publishing.</p> <p>Nonferrous metals—smelting, refining.</p> <p>Rayon yarn.</p> <p>Rubber products.</p> <p>Shipbuilding.</p> <p>Sugar refining—cane.</p>	<p>Agricultural implements, including tractors.</p> <p>Baking.</p> <p>Book and job printing and publishing.</p> <p>Cement manufacturing.</p> <p>Cigarettes.</p> <p>Furniture—wood, upholstered, metal.</p> <p>Glassware.</p> <p>Hosiery.</p> <p>Iron and steel products, excluding machinery.</p> <p>Leather products, excluding shoes and gloves.</p> <p>Leather tanning and finishing.</p> <p>Meat packing.</p> <p>Nonferrous metals—alloying, rolling, drawing, excluding aluminum.</p> <p>Pottery, including chinaware.</p> <p>Railroad equipment manufacturing.</p> <p>Shoes, including cut stock and findings.</p> <p>Sugar—beet.</p> <p>Woolen and worsted textiles.</p>	<p>Canning and preserving foods.</p> <p>Chemicals—industrial.</p> <p>Cigars.</p> <p>Clay products—structural.</p> <p>Clocks and watches.</p> <p>Concrete, gypsum, and plaster products.</p> <p>Confectionery products.</p> <p>Cotton textiles.</p> <p>Dyeing and finishing textiles, excluding hosiery.</p> <p>Flour and other grain products.</p> <p>Gloves—leather, cloth, knit.</p> <p>Jewelry and silverware.</p> <p>Lumber—saw and planing mills.</p> <p>Machine tools.</p> <p>Petroleum and coal products, pulp and paper products.</p> <p>Silk and rayon textiles.</p> <p>Toys, sporting and athletic goods.</p>	<p>Agriculture.</p> <p>Air transportation, excluding pilots and mechanics.</p> <p>Beauty shops.</p> <p>Domestic service.</p> <p>Iron mining.</p> <p>Laundries.</p> <p>Office, technical, and professional employees, excluding transportation, communication, theater, and newspaper.</p> <p>Retail trade—general merchandise, specialty, gasoline stations and garages, and excluding food.</p> <p>Wholesale trade.</p>
NONMANUFACTURING INDUSTRIES				
<p>Actors and musicians.</p> <p>Airline pilots and mechanics.</p> <p>Maritime—licensed and unlicensed personnel.</p> <p>Mining—anthracite and bituminous.</p> <p>Motion picture production.</p> <p>Railroads—freight and passenger, including shops and clerical.</p>	<p>Bus and streetcar, local.</p> <p>Longshoring.</p> <p>Radio technicians.</p>	<p>Bus lines, intercity.</p> <p>Construction.</p> <p>Telephone service and maintenance.</p>	<p>Barber shops.</p> <p>Building servicing and maintenance.</p> <p>Cleaning and dyeing.</p> <p>Crude oil and natural gas.</p> <p>Dairy products.</p> <p>Fishing.</p> <p>Hotels and restaurants.</p> <p>Light and power.</p> <p>Motion picture theaters.</p> <p>Newspaper offices.</p> <p>Nonferrous metal mining.</p> <p>Nonmetallic mining and quarrying.</p> <p>Retail trade—food.</p> <p>Taxicabs.</p> <p>Telegraph service and maintenance.</p> <p>Trucking—local and intercity.</p>	<p>Agriculture.</p> <p>Air transportation, excluding pilots and mechanics.</p> <p>Beauty shops.</p> <p>Domestic service.</p> <p>Iron mining.</p> <p>Laundries.</p> <p>Office, technical, and professional employees, excluding transportation, communication, theater, and newspaper.</p> <p>Retail trade—general merchandise, specialty, gasoline stations and garages, and excluding food.</p> <p>Wholesale trade.</p>



agreements were signed for workers in retail and wholesale trade and hotels and restaurants, these agreements were confined almost entirely to the large cities, and the great majority of employees in these industries throughout the country remained outside collective-bargaining relationships.

### *Extent of Closed or Union Shop*<sup>1</sup>

The question of the union shop was a major issue on a number of occasions in 1941. Most of the open disputes over the matter took place in plants where employers 5 or 6 years before had opposed any union organization and had granted union recognition only after action by the National Labor Relations Board and, in many cases, only after courts had sustained the Board's findings. In many of these plants, although written agreements had finally been signed, collective-bargaining relations were not fully established; the employer and the union had not reached a common understanding over procedures and policies for joint negotiations. Whether this was due to the employer's lingering opposition to collective bargaining or to the ineptness of inexperienced unions, the situation was one of mutual suspicion and uncertainty, to which the union's response was the demand for greater security by way of the union shop.

In addition to these local plant situations which incited particular local unions to seek greater union security, was the expressed intent of the labor movement as a whole to become established firmly and permanently in the industrial system. The leaders of organized labor, recalling the concerted "open-shop" drives after the last war, which caused a collapse of unionization in many industries, were convinced that the fullest measure of security must be obtained in order to avoid a similar situation in the coming period of post-war readjustment.

As the year ended, the union-shop issue was being contested in some of the major industries. In many other places the union had not raised the issue, either because it had gained virtual union-shop conditions and therefore considered it unnecessary to seek formal adoption by written agreement, or because the union was not sufficiently strong to contest the point.

In a substantial portion of organized industry, however, the matter had already been settled. Approximately 4,000,000 workers in 1941 were employed in plants or occupations covered by closed- or union-shop conditions. These included about 40 percent of all workers under agreement. In addition, there were substantial groups of workers, principally railroad employees and the Pacific coast longshoremen, who were working under virtual union-shop conditions although their agreements included no specific statements to that effect. The largest groups of workers under closed- and union-shop agreements are the coal miners, truck drivers, and the building-trades workers. This type of agreement also prevails in the organized sections of the clothing, printing, city transportation, baking, hotel and restaurant, and brewery industries.

Union-shop agreements had been obtained for most of the coal industry previous to 1941. The last important sections conformed when the Harlan County mine operators signed such agreements in

<sup>1</sup> The closed shop usually refers to a situation where not only present employees but all new employees must be hired through the union or must be members at the time of employment, whereas under the union shop new employees need not be union members at the time of hiring but must join the union as a condition of continued employment, usually after a short probationary period.

the spring of 1941 and after an arbitrator's award granted the union shop for the captive mines in December. Truck drivers' and building-trades' agreements almost always provide for a closed shop and the extent of the closed shop is therefore coextensive with collective bargaining in these trades. The same is true with respect to most of the printers', bakers', clothing, and brewery agreements.

The extent of closed- or union-shop provisions in the agreements for most of the other industries varies greatly. Practically none of those in metal-mining and only a few of those in the chemical, farm equipment, and aluminum industries have such provisions. Slightly more of the textile, rubber, and electrical-equipment agreements provide for closed- or union-shop conditions. There are a number of union-shop agreements in the fabricating branch of the steel industry, but none for the larger companies in basic steel. Except for the outstanding instance of the Ford Motor Co., none of the large automobile companies have union-shop agreements, although a considerable number of the smaller parts plants have. At least half of the machine shops and foundries are covered by closed-shop agreements, in contrast to only a small proportion of the machine-tool industry. Approximately half of the organized shipyards are operated as closed or union shops, whereas less than a fifth of the aircraft workers are covered by such agreements.

## PRODUCTIVITY AND UNIT LABOR COST IN MANUFACTURING INDUSTRIES

IN 1939, the National Research Project on Reemployment Opportunities and Recent Changes in Industrial Techniques published a three-volume report giving indexes of production, employment, and productivity for 59 manufacturing industries for the period 1919-36.<sup>1</sup> Recently the Bureau of Labor Statistics has extended these indexes through 1941, where the available data permitted, and has added indexes of pay rolls and unit labor cost. Some revisions in the original series have also been made. The resulting indexes of output per man-hour and unit labor cost are summarized in the accompanying table.<sup>2</sup> The indexes, shown for the years 1935, 1937, and 1939-41, are presented here on a 1929 base to permit comparisons not only between recent years but also with the year 1929.

In all manufacturing industries combined, productivity increased about 20 percent between 1929 and 1935, and nearly as much again between 1935 and 1941. Even during the period of transition to a war economy after 1939, productivity continued to increase.

Unit labor cost (the cost of labor per unit of product manufactured) is equivalent to the ratio between average hourly earnings and productivity. In all manufacturing industries combined, unit labor cost declined substantially after 1929. It increased somewhat after 1933 as a consequence of the general upward readjustment of wages during this period. There was a sharp rise between 1940 and 1941, again caused by important adjustments in average hourly earnings. Nevertheless, in 1941 unit labor cost remained more than 10 percent below the 1929 level.

Productivity changes in the individual industries were quite diverse in character. In a few industries, the index of output per man-hour in 1935 was below the 1929 base level. Virtually all such declines took place in years when production was abnormally low. Productivity in most of the industries was significantly higher in 1935 than in 1929, and in most cases further improvements took place between 1935 and 1941. In every industry for which it was possible to compute an index, output per man-hour stood higher in 1941 than in 1929, and in all but one, cane-sugar refining, the index was higher in 1941 than in 1935. The greatest increase in productivity took place in the rayon and allied products industry, for which the index more than quadrupled over the period 1929 to 1941. The experience in this industry contradicts the notion that displacement of workers must follow rapid increases in productivity, since employment in 1941 was about one-third greater than in 1929.

For most of the industries, advances in productivity over the period more than balanced increases in average hourly earnings in determining the direction of changes in unit labor cost. In only eight

<sup>1</sup> Works Progress Administration. National Research Project on Reemployment Opportunities and Recent Changes in Industrial Techniques (David Weintraub, director). Production, Employment, and Productivity in 59 Manufacturing Industries, 1919-36, by Harry Magdoff, Irving H. Siegel, and Milton B. Davis. Philadelphia, 1939.

<sup>2</sup> These indexes, together with indexes of production, employment, man-hours, pay rolls, and output per wage earner, are shown in detail for the various industries in a report entitled, "Productivity and Unit Labor Cost in Selected Manufacturing Industries: 1919-1940," and a mimeographed supplement, "Productivity and Unit Labor Cost in Selected Manufacturing Industries: 1941." Both may be obtained on request from the Bureau of Labor Statistics.



of the industries for which 1941 data are available were labor costs higher than in 1929. The greatest reduction occurred, as might be expected, in the rayon and allied products industry. A comparison of the unit labor cost and productivity figures indicates, moreover, that this reduction was achieved at the same time that average hourly earnings increased by more than 50 percent. The greatest increase in unit labor cost took place in the chewing and smoking tobacco and snuff industry where a moderate increase in productivity was more than offset by increases in average hourly earnings.

*Indexes of Output per Man-Hour and Unit Labor Cost for Selected Manufacturing Industries, 1935, 1937, and 1939-41*

[1929=100]

Industry	Output per man-hour					Unit labor cost				
	1935	1937	1939	1940	1941 <sup>1</sup>	1935	1937	1939	1940	1941 <sup>1</sup>
All manufacturing.....	120.5	119.6	132.4	138.8	142.7	80.9	89.7	81.3	81.2	88.4
Agricultural implements.....	88.2	122.0	153.2	160.6	-----	110.0	107.5	76.7	76.9	-----
Boots and shoes.....	124.8	123.2	128.7	135.0	143.5	75.2	78.1	71.7	71.1	74.9
Bread and other bakery products.....	106.3	102.6	111.3	109.5	108.0	98.6	104.8	101.2	106.3	112.6
Cane-sugar refining.....	132.7	137.5	125.3	129.0	126.1	94.7	101.4	112.4	111.0	117.5
Canning and preserving.....	146.9	129.3	145.6	163.5	-----	79.9	94.6	87.2	80.7	-----
Cement.....	112.9	124.5	139.4	138.0	149.8	96.0	101.3	89.4	89.1	88.1
Chemicals.....	116.6	126.6	138.7	133.0	-----	91.0	101.4	96.8	106.0	-----
Clay products (other than pottery).....	95.7	100.2	113.7	110.0	-----	89.7	98.8	91.1	97.7	-----
Coke.....	89.1	100.9	106.6	110.9	135.5	112.7	114.8	132.9	-----	113.7
Confectionery.....	164.5	163.9	185.8	195.4	204.0	71.0	71.5	66.4	64.2	66.6
Cotton goods.....	124.3	136.6	146.1	155.6	161.6	93.3	93.3	82.2	81.8	88.2
Fertilizers.....	122.3	120.2	134.9	137.9	132.3	87.9	87.9	86.6	89.2	102.8
Flour.....	104.3	96.2	115.0	114.7	112.5	94.4	101.8	89.3	90.4	97.6
Furniture.....	100.7	98.2	106.3	109.5	112.3	83.0	94.9	88.2	88.8	96.2
Glass.....	158.6	166.6	181.7	184.5	189.7	72.6	79.6	75.8	77.0	80.1
Ice cream.....	127.8	148.3	183.0	188.3	220.5	69.5	58.7	47.8	48.2	43.1
Iron and steel.....	108.5	113.7	136.9	133.6	138.3	97.8	112.0	95.2	97.5	105.7
Knit goods.....	145.7	144.6	163.2	-----	-----	78.6	79.5	70.0	-----	-----
Leather.....	128.5	130.9	151.8	152.4	165.9	85.8	91.7	78.7	80.3	80.9
Lumber and timber products.....	110.2	100.0	121.3	129.0	133.3	80.2	89.8	81.9	81.7	87.2
Motor vehicles, bodies and parts.....	118.2	119.3	118.8	120.4	(?)	91.6	105.1	109.7	110.8	(?)
Newspapers and periodicals.....	119.1	120.3	129.3	134.7	137.4	84.7	84.2	81.7	80.4	80.3
Nonferrous-metals group.....	86.5	100.2	109.9	-----	-----	108.3	115.4	106.5	-----	-----
Primary smelters and refineries.....	85.1	97.9	111.7	114.7	109.4	98.4	112.4	98.6	93.8	110.0
Alloyers, rolling mills and foundries.....	85.7	99.8	107.6	-----	-----	114.3	118.6	111.2	-----	-----
Paints and varnishes.....	119.8	127.0	139.4	139.2	164.3	87.4	92.4	89.7	92.7	84.3
Paper and pulp group.....	117.6	124.4	134.3	139.9	142.0	82.0	88.5	83.8	83.8	90.7
Paper.....	116.1	121.5	130.2	132.6	134.6	85.0	91.8	87.6	89.6	96.8
Pulp.....	125.6	139.9	156.1	186.9	186.4	69.9	74.2	68.1	59.2	64.8
Petroleum refining.....	147.7	167.1	193.4	200.0	207.6	85.2	88.4	77.2	75.1	77.3
Planing-mill products.....	96.2	98.4	115.3	-----	-----	80.1	85.5	72.8	-----	-----
Rayon and allied products.....	222.7	261.1	328.8	375.0	424.3	51.0	50.6	42.8	39.3	37.7
Rubber products group.....	145.3	144.8	156.0	154.5	-----	79.5	88.7	81.7	83.7	-----
Tires and tubes.....	171.5	175.4	198.1	203.9	195.1	70.6	77.9	68.7	67.6	74.3
Other rubber goods.....	125.3	122.7	127.6	123.3	-----	90.6	103.6	99.0	104.4	-----
Silk and rayon goods.....	152.0	170.3	230.8	261.5	269.4	65.2	58.9	42.0	39.3	41.7
Slaughtering and meat packing.....	103.9	105.9	126.4	128.4	127.3	101.5	111.6	95.0	93.9	103.2
Tobacco products group.....	139.7	145.2	161.9	162.3	166.7	78.4	82.6	79.6	82.6	85.3
Cigars.....	150.3	157.7	181.0	180.0	183.9	70.6	69.9	65.1	67.1	70.0
Cigarettes.....	112.4	121.7	126.9	130.4	143.5	85.4	97.3	94.9	97.9	94.8
Tobacco and snuff.....	119.2	114.9	121.9	123.3	122.5	102.2	116.3	122.1	126.9	134.9
Woolen and worsted goods.....	140.5	135.9	141.3	138.0	153.1	77.7	92.4	81.3	88.5	89.6

<sup>1</sup> All 1941 figures preliminary.

<sup>2</sup> Figures not shown, since not comparable with those for earlier years.  
Based on figures for first 9 months only.



# OCCUPANCY OF PRIVATELY FINANCED HOUSES IN BRIDGEPORT

By ALEXANDER C. FINDLAY, Bureau of Labor Statistics \*

## Summary

HOW many homes has private enterprise furnished in defense areas? Are the homes being sold or rented? How many are occupied by incoming defense workers? What income groups are living in the new homes and how much are they spending for them? To throw light on such questions a survey of defense housing occupancy was made by the Bureau of Labor Statistics early in 1942 in the Bridgeport, Conn., area.

In defense areas where it has appeared probable that the need for houses would continue beyond the war emergency, the Government has relied on private enterprise to furnish part of the supply. By a system of granting priorities on critical building materials and by liberalizing terms on FHA-insured loans, the Government has encouraged private enterprise to build homes suitable for defense workers. To be eligible for priorities the houses must be built to sell for \$6,000 or less, or to rent for no more than \$50 per month. Although it is required that these privately financed homes be in defense areas, their occupancy is not restricted to defense workers as is the case with Federal housing projects.

During the 12 months ending with September 1941, building permits had been granted, in the Bridgeport area, for 1,924 new dwellings to be financed privately. The Bureau's occupancy survey included a sample of 2 out of every 7 of these units.

Over 77 percent of the privately financed units in the sample had been completed by February 1942, when the survey was made, and families had already moved into more than nine-tenths of them. Most of the families had bought their homes; only 13 percent were renters. Furthermore, practically all of the completed units which were found to be vacant were being held for owner occupancy or for sale. The entire supply of vacant rental units in the sample consisted of two apartments, and one of these had already been rented.

About 36 percent of the households had some member of the family, or a roomer, who was working in a "defense" industry, i. e., an industry producing aircraft, aluminum and brass products, ordnance, steel, or machine tools. "Defense" households which had just moved to the Bridgeport area or had been living there less than 18 months comprised only one-eighth of all those living in the new homes, and 3 of every 4 of the incoming families had purchased homes.

In the majority of households the earnings were moderate. In 56 percent the combined earnings of the head of the household and spouse, if the latter were working, were less than \$2,500 a year. In 17 percent of the families these combined earnings totaled \$3,500 or more.

Approximately half of the single-family houses had cost their owners \$6,000 or more, and almost 9 percent, exactly \$6,000. Thirty-six

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percent had cost between \$5,000 and \$6,000, but those over \$6,000 were three times as numerous as those under \$5,000. Prices asked for those still on the market were even higher than for those sold.

The monthly rental for half of the rented houses and apartments was \$50 or more, and two-fifths of the families were spending no less than 25 percent of their earnings for rent.

In evaluating these facts it should be stressed that they are based on findings in a single defense area and it must not be assumed that they are typical of the situation in other areas.

### *Purpose and Scope of Study*

The survey of the occupancy characteristics of new privately financed dwelling units in the Bridgeport, Conn., defense area was an outgrowth of the Defense Housing Survey which is being conducted as a WPA project sponsored and directed by the Bureau of Labor Statistics. The Defense Housing Survey was started in July 1941 at the request of the Division of Defense Housing Coordination (now a part of the National Housing Agency) to determine the net increase in the number of dwelling units provided by private enterprise since January 1940 in approximately 150 defense areas throughout the country. It was subsequently decided to carry the survey in the Bridgeport area one step further, to learn the extent to which the homes constructed by private enterprise were being occupied by defense workers.

Among the principal considerations governing the choice of the Bridgeport area for the supplementary survey was the fact that it contains numerous plants making a wide variety of defense and other products and is therefore not dominated by a single industry or a single employer. Furthermore, because of its long industrial background, the area does not present the abnormal conditions of a "boom town" in the early stages of industrial development.

The Bridgeport defense area consists of the Bridgeport Metropolitan District, plus Milford town where large numbers of Bridgeport workers live. It includes eight minor civil divisions—the cities of Bridgeport and Shelton and the towns of Easton, Fairfield, Milford, Stratford, Trumbull, and Westport.

The Defense Housing Survey provided records of all new dwelling units for which permits were issued or construction was started in the Bridgeport area during the 12 months ending September 30, 1941. From a total of 1,924 such units, a sample of 548 (i. e., 2 out of every 7) was selected, representing all price classes and all parts of the area.

Field agents called at each address in the sample during the last 2 weeks of January and the first 2 weeks of February 1942, to determine the occupancy status of the unit. For all completed units, the agent interviewed either some member of the household living in the unit, or, if the unit was vacant, the real-estate agent handling it, or some other appropriate person.

The families living in the new homes supplied their former addresses, and a follow-up survey is being made to determine the current occupancy status of the units vacated by them.

### *Effect of Defense Program on Bridgeport*

Bridgeport's history in defense production dates from the Revolutionary War, when it manufactured cannon and made the celebrated chain with which the Hudson River was blocked against navigation. During World War I, it was engaged principally in the manufacture of ordnance. In more recent years the city has been best known for its metal products, particularly those involving precision operations. These include electrical household appliances and other electrical equipment, sewing machines, machine tools and accessories, aircraft, small arms and ammunition, aluminum and brass goods, open-hearth steel, and iron and steel products. In addition to its metal-working industries, Bridgeport has a number of factories manufacturing wearing apparel, food products, plastics and other chemical products, abrasives, and rubber goods.

In the spring of 1940 the Bridgeport defense area had a population of 233,000 persons, of whom 147,000 were living in the city of Bridgeport itself. Bridgeport had grown comparatively little (2 percent) during the preceding 20 years, but population increases in the outlying areas resulted in a gain of about 19 percent for the entire defense area.

As the defense program got under way, Bridgeport became one of the country's more important defense centers. Between June 1940 and December 1941 the Bridgeport industrial area received prime defense contracts totaling over \$194,000,000.<sup>1</sup> Employment in Bridgeport's factories began rising in the summer of 1940. By January 1942 expansion in the ammunition, aircraft, brass, bronze, and copper products, and machine-tool industries had pushed factory employment in the Bridgeport metropolitan area 62 percent above the August 1940 level.

This industrial activity quickly exhausted the local supply of unemployed workers with the desired skills. An extensive training program was set up to replenish the supply of semiskilled workers from local sources, and a large group of commuters was drawn into the Bridgeport labor market from nearby farms and villages. In addition, migrant workers in large numbers were attracted to Bridgeport for the new jobs. The number of migrants moving into Bridgeport during the 13 months ending in the early part of November 1941 was about three times as great as the net population gain in the city of Bridgeport during the previous 20 years. A large proportion of the migrant workers had not brought their families with them to Bridgeport.<sup>2</sup>

The incoming workers soon filled practically all the vacant dwelling units. By October 1941, a WPA survey of vacancies showed that the gross vacancy rate in Bridgeport, Stratford, and Fairfield combined was only 1.4 percent, as against the 5-percent rate considered as normal. The vacancy rate for rental units in good repair was only 0.4 percent, and only half of these units had all the modern conveniences.

A USHA-aided development of 516 units, started in 1940, had been completed and all units were occupied, when the Bureau's occupancy

<sup>1</sup> United States War Production Board. Statistics Division. Summary of War Supply and Facility Contracts by Industrial Area, June 1940 through December 1941. Washington, 1942.

<sup>2</sup> See Federal Works Agency, Work Projects Administration. Recent Migration into Bridgeport, Conn. (Mimeographed memorandum, Dec. 5, 1941.) The survey was based on civilians living within the corporate limits of Bridgeport early in November 1941, who had moved to Bridgeport from outside Fairfield County after October 1, 1940. It did not cover migrants living in other parts of the Bridgeport defense area.



survey was made in February 1942. In addition, the Federal Government had awarded contracts in 1941 for 2,200 units of defense housing in the Bridgeport area. Approximately 800 of these units had been completed and were occupied by defense workers in February 1942.

### *Supply of New, Privately Financed Units in 1940 and 1941*

The defense housing projects were designed to supplement the supply of housing furnished by private capital in order to insure adequate accommodations for the incoming defense workers at rents they could afford. In the Bridgeport area private enterprise provided the major share of the new housing; during 1940 and 1941, permits were issued to private and promotional builders for 3,465 new dwelling units. Permits for 1,924 of these units were issued during the 12 months ending September 30, 1941, and it was from this group that the Bureau's sample of 548 units was selected.

At the time of the occupancy survey, 424 of the 548 units were completed, 79 were still under construction, and on 45 units work had either not been started or had been stopped in the early stages of construction. Under normal circumstances the proportion shown in table 1 as still under construction—more than 14 percent—would be unusually high, when it is considered that the date of the agent's visit was in practically all cases at least 4 months after the permit was issued and in most cases much longer. In a few cases the slowness was due to the fact that the owner was doing his own building. In a number of instances, however, the unit was almost finished but was delayed by lack of plumbing or electrical materials.

TABLE 1.—*Completion and Occupancy Status of New Privately Financed Dwelling Units in Bridgeport Defense Area, by Type of Structure, February 1, 1942*<sup>1</sup>

Completion status	Total number of units	Percent of total	Number of dwelling units in—		
			1-family houses	2-family houses	3-or-more-family buildings
Total.....	548	100.0	451	47	50
Not started.....	19	3.5	14	3	2
Started; work stopped.....	26	4.7	2		24
Under construction.....	79	14.4	68	9	2
Completed.....	424	77.4	367	35	22
Occupied.....	384	70.1	329	35	20
By owner.....	330	60.2	315	13	2
By renter.....	48	8.8	9	21	18
Other or unknown tenure.....	6	1.1	5	1	
Seasonally occupied.....	3	.5	3		
Vacant.....	37	6.8	35		2
For sale.....	23	4.2	23		
Sold.....	7	1.3	7		
Held for owner occupancy.....	3	.5	3		
Held for seasonal occupancy by owner.....	2	.4	2		
For rent.....	1	.2			1
Rented.....	1	.2			1

<sup>1</sup> Based on sample of dwelling units for which permits were issued or construction was started between Oct. 1, 1940, and Sept. 30, 1941.

Over 86 percent of the completed dwellings were single-family houses. Eight percent were in 2-family houses<sup>2</sup> and the remainder

<sup>2</sup> Because of the manner in which the sample was drawn, each of the units in 2-family houses was in a different structure.



were in buildings housing 3 or more families. All of the 2-family and multifamily structures were either in the city of Bridgeport or in Stratford town.

Families were already living in more than nine-tenths of the new homes that were finished at the time of the survey. None of the vacant single-family units was for rent; some of them had been built by the owner or had already been sold, but the majority were for sale. There were two vacant apartment units and one of these had been recently rented.

Most of the new homes were small; the average size of the occupied units was 4.87 rooms. About a third of the units had 4 rooms and approximately the same number had 5 rooms. Flats and apartments comprised four-fifths of the rented units, which averaged fewer rooms than the owner-occupied homes (predominantly single-family houses).

### Homes Vacated and Change of Tenure

Almost four-fifths of the families in the new homes were not newcomers, but had moved from other houses or apartments in Bridgeport. These families had had exclusive occupancy of their former homes; some may have had roomers, but they had not shared their homes with another family.<sup>4</sup> In a small number of cases, however, the shifts represented the "undoubling" of families. Thus, the occupants of about 4 percent of the new homes shown in table 2 had previously been sharing a home with another family, usually a relative, and in some cases had paid no rent. About the same proportion had moved from furnished rooms, hotels, or tourist cabins. The remaining new homes were occupied by newly formed families, by families just arrived in Bridgeport, or families for which information about their previous homes could not be obtained.

More than two-thirds of the new homes were occupied by families which had been in the Bridgeport area for at least 18 months. Although a few of these families had been living with relatives or in hotels and furnished rooms, the majority had had their own homes. Among families which had been living in Bridgeport less than 18 months, the proportion moving from shared dwellings and from rooms, hotels, or tourist cabins was higher than was the case with the older residents. Nevertheless, the majority of the more recent residents had had their own homes in Bridgeport before they moved to the new dwellings. About 7 percent of the families had moved directly into the new homes from outside the Bridgeport area.

About 36 percent of the households in the new dwellings had at least one member who was employed in a defense industry.<sup>5</sup> The proportion of these families which had been living in more or less temporary quarters was little different from that for other industrial

<sup>4</sup> Information obtained in the follow-up survey shows that 20 families which had reported exclusive occupancy of a dwelling unit in the Bridgeport area had, in fact, been sharing a dwelling.

<sup>5</sup> The industrial fields of employed members of the household were classified according to the product or services of the employers in the following groups: (1) Aircraft, aluminum, brass, ordnance, steel, and machine tools; (2) other metal manufacturing; (3) miscellaneous manufacturing; (4) trade and services; and (5) all other industrial fields. This classification was followed regardless of the type of work done by the workers.

The listing of the groups represents a descending order of importance in defense production. The first group was composed of industries known to be entirely or almost entirely engaged in defense production. The second group had a less degree of defense production, and so on. The classification represents the status at the time of the survey and would change with additional conversions to war production.

Each dwelling was given the highest industrial rating found among members of the household, which in many cases was not that of the head. Boarders and roomers were included, but their inclusion changed the household classification in only 8 instances.

groups. The defense group, however, did include a higher proportion of families which had moved to Bridgeport within the previous 18 months than was the case in the other groups.

TABLE 2.—*Previous Housing of Occupants of New Privately Financed Dwelling Units in Bridgeport Defense Area, February 1, 1942*<sup>1</sup>

Length of residence, industry group, and previous tenure	Number of households with specified previous dwelling accommodations					Un-known
	All households	Dwelling unit—		Room, hotel, or tourist cabin	No previous dwelling in area	
		Un-shared	Shared with another family			
Total.....	384	303	17	16	39	9
Length of residence in area:						
No prior residence in area.....	28				28	
Less than 6 months.....	19	11	5	3		
6 months and less than 18 months.....	59	48	5	6		
18 months or more.....	250	241	7	7		4
Newly formed family.....	11				11	
Unknown.....	8	3				5
Industry group:						
Aircraft, aluminum, brass, ordnance, steel, machine tools.....	138	108	4	8	16	2
Other metal manufacturing.....	70	55	4	4	6	1
Miscellaneous manufacturing.....	30	23			7	
Trade and services.....	84	71	4	2	6	1
All other <sup>1</sup> .....	62	46	5	2	4	5
Previous tenure:						
Rental units.....	296	263	17	16		
Units owned.....	38	38				
All other.....	50	2			39	9

<sup>1</sup> Based on sample of dwelling units for which permits were issued or construction was started between Oct. 1, 1940, and Sept. 30, 1941, inclusive.

<sup>2</sup> Includes households in industry groups not shown separately, those with no member employed, and those with occupations unknown.

In most cases, moving into a new home in the Bridgeport area meant that the families had changed from being renters to being home owners. Over five-sixths of the families bought their new homes, but only 10 percent moved from another home in Bridgeport which they had previously owned.

The tendency to buy homes was about the same for all industrial groups included in table 3. However, home purchasing was more prevalent among families which had been in the Bridgeport area for some time than among families new in the community. Home purchasers formed 95 percent of the families which had been in Bridgeport at least 18 months, but only 73 percent of those living in the area less than 18 months. Sixty-four percent of the families which had just come to Bridgeport and 55 percent of the newly formed families had bought their homes.

TABLE 3.—Tenure of Occupied New Privately Financed Dwellings in Bridgeport Defense Area, by Industry Group and Length of Residence, February 1, 1942<sup>1</sup>

Industry group and length of residence	Total units	Percent of total	Number of dwelling units—		
			Owner-occupied	Rented	Other or unknown tenure
All industries.....	384	100.0	330	48	6
Aircraft, aluminum, brass, ordnance, steel, machine tools.....	138	35.9	122	16	—
No prior residence in area.....	13	3.4	9	4	—
Less than 18 months.....	32	8.3	25	7	—
18 months or more.....	88	22.9	85	3	—
All other <sup>2</sup> .....	5	1.3	3	2	—
Other metal manufacturing.....	70	18.2	61	8	1
No prior residence in area.....	4	1.0	3	1	—
Less than 18 months.....	6	1.6	3	3	—
18 months or more.....	58	15.1	54	3	1
All other <sup>2</sup> .....	2	.5	1	1	—
Miscellaneous manufacturing.....	30	7.8	26	4	—
No prior residence in area.....	5	1.3	3	2	—
Less than 18 months.....	4	1.0	3	1	—
18 months or more.....	18	4.7	18	—	—
All other <sup>2</sup> .....	3	.8	2	1	—
Trade and services.....	84	21.9	71	13	—
No prior residence in area.....	3	.8	1	2	—
Less than 18 months.....	21	5.5	15	6	—
18 months or more.....	57	14.8	53	4	—
All other <sup>2</sup> .....	3	.8	2	1	—
All other <sup>2</sup> .....	62	16.2	50	7	5
No prior residence in area.....	3	.8	2	1	—
Less than 18 months.....	15	3.9	11	4	—
18 months or more.....	38	9.9	36	2	—
All other <sup>2</sup> .....	6	1.6	1	—	5

<sup>1</sup> Based on sample of dwelling units for which permits were issued or construction was started between Oct. 1, 1940, and Sept. 30, 1941, inclusive.

<sup>2</sup> Includes newly formed families and those with length of residence unknown.

<sup>3</sup> Includes households in industry groups not shown separately, those with no member employed, and those with occupations unknown.

### Size and Income of Households

Families living in the new units were comparatively small in size. Over five-eighths of the households had only 2 or 3 persons. This included the roomers living with about 9 percent of the families. On the average, there were 3.2 persons living in each new home.

Although a few households had no members with jobs, a number had more than one person at work. The average number of workers in the households which were known to have at least one member employed was 1.35.

In the majority of households the family earnings were moderate. Annual family earnings were computed on two bases: (1) Only the wages and salaries and business or professional income of the head of the household (and spouse, if working) were included; and (2) earnings of all family members plus income from rental of rooms, but not roomers' incomes, were included.<sup>4</sup> The former has been regarded as the normal source from which housing costs would be met, while the latter represents the maximum amount available should it be necessary to draw on other members of the household. In 56 percent of the families

<sup>4</sup> Neither set of figures can be regarded as representing total family income because income from investments, pensions, and other sources is not included.



reporting their earnings, the combined earnings of the head and spouse, if working, were less than \$2,500 a year. In 27 percent these earnings were between \$2,500 and \$3,500, and in 17 percent \$3,500 or more. Even with the inclusion of earnings of other members of the family and room rent, over half of the families had earnings of less than \$2,500. Twenty-six percent had between \$2,500 and \$3,500, and the remaining 23 percent \$3,500 or more per year.

### Cost of New Dwellings

The most usual price for the new single-family houses which had been either constructed on contract or purchased from a speculative builder was from \$5,000 up to \$6,000. Figures in table 4 show that over 36 percent of the houses for which the purchase price was ascertained were in this price group. Almost 9 percent sold for exactly \$6,000. One-family houses which had sold for over \$6,000 were almost three times as numerous as those costing less than \$5,000. Prices asked for single-family houses still on the market were even higher than those obtained for the houses already sold. Over \$6,000 was being asked for 17 of the 23 houses for sale.

TABLE 4.—Purchase Price or Rental of Completed New Privately Financed Dwellings in Bridgeport Defense Area, by Type of Structure, February 1, 1942<sup>1</sup>

Purchase price or monthly rent	Total dwelling units	Number of dwelling units in—				
		1-family houses			2-family houses	3-or-more-family buildings
		Total	Sold <sup>2</sup>	For sale		
All tenures.....	424	367	327	23	35	22
Total sold or for sale.....	365	350	327	23	13	2
Under \$3,000.....	(4)	1	1	—	—	—
\$3,000-\$3,999.....	(4)	5	5	—	—	—
\$4,000-\$4,999.....	(4)	43	40	3	—	—
\$5,000-\$5,999.....	(4)	117	115	2	1	—
\$6,000.....	(4)	28	27	1	—	—
\$6,001-\$7,499.....	(4)	72	66	6	2	—
\$7,500-\$9,999.....	(4)	44	38	6	4	1
\$10,000 or more.....	(4)	29	24	5	6	1
Unknown.....	(4)	11	11	—	—	—
Total rented.....	49	9	—	—	21	19
\$30-\$39 per month.....	3	1	—	—	2	—
\$40-\$49 per month.....	20	2	—	—	6	12
\$50-\$59 per month.....	18	3	—	—	9	6
\$60-\$69 per month.....	5	2	—	—	3	—
\$70-\$79 per month.....	—	—	—	—	—	—
\$80 per month and over.....	1	1	—	—	—	—
Unknown.....	2	—	—	—	1	1
Other or unknown tenure.....	10	8	—	—	1	1

<sup>1</sup> Based on sample of dwelling units for which permits were issued or construction was started between Oct. 1, 1940, and Sept. 30, 1941, inclusive.

<sup>2</sup> Includes houses occupied by owners, sold but vacant, and held for owner occupancy.

<sup>3</sup> Includes houses rented or with other or unknown tenure, as well as those sold or for sale.

<sup>4</sup> The distribution of all types of structure by selling price is not shown because prices for single-family houses are not comparable with those for 2-family or multifamily structures, which represent the cost of the structure rather than the cost per dwelling unit.

<sup>5</sup> Includes 3 houses seasonally occupied.

<sup>6</sup> For rent.

In general, however, homes with some member of the household employed in a defense industry were less expensive than those occupied by other households in the sample. Over three-fifths of the 1-family homes occupied by "defense" households cost less than \$6,000, as contrasted with only about two-fifths of those occupied by other families.

Families which had been living in the Bridgeport area for some time tended to pay more for houses than did families newer in the community. Only 48 percent of the new single-family houses occupied by families which had been in Bridgeport for at least 18 months cost under \$6,000, as contrasted with 61 percent of those occupied by families moving to Bridgeport more recently.

Prices paid for the few owner-occupied 2-family and multifamily structures in the sample were higher than those paid for single-family houses. Owners of the larger structures, however, had purchased rental property as well as a place to live.

Only 9 of the new 1-family houses had been rented. None was rented for less than \$35 a month and 1 had been rented for \$90. The majority of the rented units in 2-family houses were in the rental range from \$40 to \$60. All of the units in apartment houses were in the same range, but for every one which rented for \$50 or more, there were 2 which rented for less than \$50.

#### COST OF DWELLING IN RELATION TO EARNINGS <sup>6</sup>

The purchase price of the dwelling was at least twice the annual earnings of almost three-fourths of the families which had bought and were living in new single-family houses. From table 5 it can be seen that the lower the earnings, the higher the ratio of housing cost to earnings. For the majority of families with earnings of less than \$1,500 a year, the price of the house was at least 3½ times the annual earnings. Only families with earnings of \$3,000 or more had purchased homes that could be paid for with less than 1½ years' earnings.

It was pointed out earlier that, in general, households with some member employed in a defense plant had bought less expensive homes than had other families. Table 5 shows that not only had defense families bought less expensive houses, but they had bought houses with costs more in keeping with family earnings.

In the newly rented units 24 of the 40 families for which the ratio of rent to monthly earnings could be computed were spending less than one-fourth of their earnings for rent. Since the majority of the rented units were in 2-family houses or apartments, the rentals in some cases included heat and possibly some utilities.

<sup>6</sup> Earnings of head of household and spouse; do not include earnings of other members of the family, income from investments, etc., or from renting rooms.

TABLE 5.—Ratio of Price of House to Annual Earnings,<sup>1</sup> of Owners Occupying New Privately Financed 1-Family Houses, in Bridgeport Defense Area, February 1, 1942<sup>2</sup>

Annual earnings <sup>1</sup> and industry group	Number of 1-family houses							
	All groups	Price of house as multiple of earnings						
		Under 1.50	1.50-1.99	2.00-2.49	2.50-2.99	3.00-3.49	3.50 or more	Unknown <sup>3</sup>
Total.....	315	24	48	79	56	36	29	43
Annual earnings:								
None.....	10							10
Under \$1,500.....	17				3		14	
\$1,500-\$1,999.....	40		1	4	9	17	9	
\$2,000-\$2,499.....	92		4	37	31	16	4	
\$2,500-\$2,999.....	41		13	17	9	1	1	
\$3,000-\$3,499.....	36	5	18	10	2	1		
\$3,500-\$3,999.....	29	8	11	8	1	1		
\$4,000-\$4,999.....	10	7	1	1	1			
\$5,000-\$7,499.....	5	2		2				1
\$7,500-\$9,999.....	1						1	
\$10,000 or more.....	2	2						
Unknown.....	32							32
Industry group:								
Aircraft, aluminum, brass, ordnance, steel, machine tools.....	120	12	29	37	26	8	6	2
Other industries.....	185	12	19	42	30	28	23	31
Occupation unknown or no employed person.....	10							10

<sup>1</sup> Annual earnings of head of household and spouse only.<sup>2</sup> Based on sample of dwelling units for which permits were issued or construction was started between Oct. 1, 1940, and Sept. 30, 1941, inclusive.<sup>3</sup> Includes houses for which ratio could not be computed because head of household and spouse were not employed or because necessary information for computation of ratios was lacking.

## COSTS IN RELATION TO PREVIOUS RENTS

Most of the renting families which had previously occupied rented quarters in the Bridgeport area increased their rental payments on going into their new homes.<sup>7</sup> However, it appears from table 6 that 7 of the 28 families for which this comparison could be made reduced their rental payments by moving.

An attempt is made in table 6 to show also a rough comparison of previous rents and present housing costs for families which had purchased their new homes. This shows that, for about one-third of the families for which the ratio of purchase price to rent could be computed, the purchase price was equivalent to 125 to 175 times the monthly rental of their former homes. For over two-fifths of the households the purchase price represented from 175 to 300 months of rent. All but 1 unit with price-rent ratios of less than 300 months were single-family houses. A few households with higher ratios had purchased 2-family or multifamily structures, in which cases the total purchase prices were compared with previous rentals, but the majority had purchased single-family houses

<sup>7</sup> No allowance is made in this comparison for differences in services and utilities included in the current and previous rent.



TABLE 6.—Ratio of Current to Previous Housing Costs of Occupants of New Privately Financed Dwellings in Bridgeport Defense Area, February 1, 1942<sup>1</sup>

Ratio	Number of dwelling units				
	All industries	Defense industries <sup>2</sup>	All other industries	Industry unknown	No person employed
All tenures.....	384	138	235	6	5
Owner-occupied.....	330	122	203	1	4
Purchase price as multiple of previous monthly rent:					
Under 100.....	7	4	3		
100-124.....	26	10	15	1	
125-149.....	37	13	24		
150-174.....	45	20	25		
175-199.....	30	18	11		1
200-249.....	52	20	32		
250-299.....	23	5	18		
300 or more.....	30	12	18		
Ratio inapplicable <sup>4</sup> .....	42	7	34		1
Unknown.....	38	13	23		2
Rented.....	48	16	31		1
Current rent as multiple of previous monthly rent:					
Under 1.00.....	7	1	6		
1.00-1.24.....	6	4	2		
1.25-1.49.....	7	2	5		
1.50-1.74.....	4		4		
1.75-1.99.....	1	1			
2.00-2.49.....	1		1		
2.50 or more.....	2	1	1		
Ratio inapplicable <sup>4</sup> .....	5		5		
Unknown.....	15	7	7		1
Tenure unknown.....	6		1	5	

<sup>1</sup> Based on sample of dwelling units for which permits were issued or construction was started between Oct. 1, 1940, and Sept. 30, 1941, inclusive.

<sup>2</sup> Aircraft, aluminum, brass, ordnance, steel, machine tools.

<sup>3</sup> Includes 1 dwelling unit in a 2-family structure.

<sup>4</sup> Includes 2 dwelling units in 2-family structures.

<sup>5</sup> Includes 5 dwelling units in 2-family structures and 1 dwelling unit in a 3-family structure.

<sup>6</sup> Consists of families not previously living within area, newly formed families, and those who owned previous accommodations.

# Wartime Policies

## EMERGENCY WAR POWERS OF THE STATES <sup>1</sup>

MANY States have enacted legislation granting the Governors emergency war powers which frequently may have an important bearing on labor. Some of this legislation has been on the statute books since the last war, while in other cases the laws were enacted in 1941 and 1942 as a result of the defense program. Such legislation provides for speedy mobilization of the State through direct action by the Governor when necessary.

A previous article <sup>2</sup> described in detail legislation adopted in four States (Maine, Massachusetts, New York, and Virginia) early in 1942. Since that time similar laws have been enacted in Kentucky and New Jersey. The present article briefly summarizes the powers of governors and other State officials during the war emergency, including, in some cases, the power to allow variations from laws regulating hours of work, holidays, meal periods, and child labor.

### *General Emergency Powers of Governors*

Under most State constitutions, the Governor is commander in chief of the militia and volunteer forces of the State, and he generally is authorized to call out the militia to meet threatened emergencies and to insure protection of life and property. As a result of the call of the National Guard to Federal service, the States in 1941 recognized the difficulty of relying upon the use of an unorganized State militia. Many of them took advantage of an act of Congress which authorized the organization of State guard forces to take the place of the National Guard during the latter's absence on Federal service. Twenty-seven States passed the State Guard Act formulated by the Federal-State Conference on Law Enforcement Problems of National Defense, which permits the Governor to organize such a protective force and to see to its training in advance of a specific emergency.

The powers specifically granted to the Governors by State legislative bodies are intended to make possible their quick action in time of emergency. They cover a wide range of subjects. Thus, State defense councils, which were organized in all of the States, were in a position to act swiftly when the United States found itself in a state of war. Twelve States have provided specifically by statute for the declaration of martial law throughout the entire State in time of emergency, or in particular sections in which it has become impossible for ordinary civil authority to function. In 26 States the Governor

<sup>1</sup> Data covering 1941 and earlier laws are from *Emergency War Powers of the Governors of the 48 States*, published by the Council of State Governments, Chicago, January 1, 1942. The foreword of the bulletin states that "the summary does not purport to be all-inclusive or complete for every State." Legislation enacted since date of the bulletin has been included in this article.

<sup>2</sup> See *Monthly Labor Review*, April 1942 (p. 905).

is authorized to dispatch the State Guard to neighboring States, thus assuring the mobility of these forces as well as of the regular armed forces of the Nation.

In 12 States the Governor is authorized to appoint special police for the guarding of strategic locations.<sup>3</sup> Wide powers to deal with strikes in coal mines and public utilities have been given to the Governor of North Dakota, while in Connecticut the Governor is authorized to suspend the operation of certain hours restrictions upon the labor of minors and women during the emergency. Similar powers have been given to the labor commissioners in Kentucky, New Jersey, New York, and Virginia. In Connecticut, Massachusetts, and New Hampshire, the Governor is authorized to suspend all labor laws.

Governors in many States are given widespread power to organize facilities to expedite prosecution of the war by the United States. Nine States (Iowa, Louisiana, Maine, Massachusetts, New York, North Dakota, Oklahoma, Tennessee, and Washington) grant their Governors the power to acquire land or other property for military use in the name of the State, by condemnation, lease, or purchase. The Governors are further authorized to lease the land to the United States for defense purposes for a nominal consideration. The availability of this quick means of transfer of defense industry and military sites has already been of immense value where defense industry has been forced to expand almost overnight.

The Governor of Massachusetts is authorized to undertake unusually wide wartime mobilization of State resources. He is empowered to "take any measures which he may deem proper to carry into effect any request of the President of the United States for action looking to the national defense or to the public safety." The Governor of Florida in 1941 was likewise given considerable control over the supply of oil, coal, and certain other commodities. Many years ago New Hampshire gave her Governor and council powers regulating the supply and sale of fuel.

### *Specific Powers Relating to Labor*

*Hours of labor.*—In the interests of national defense, the Governor of Connecticut is empowered to extend the number of weeks (normally 8) during which minors and women may be employed for a 10-hour day and a 55-hour week in mechanical and manufacturing establishments (Acts of 1941, ch. 341). This power is to expire on the 6th Wednesday after the convening of the 1943 legislative session. In New Jersey, the Governor is authorized to suspend or alter the 30-minute meal period required in factories, if he finds that a suspension or alteration order will not endanger the health or productive effectiveness of the employees (Acts of 1942, S. 180).

In Massachusetts (Acts of 1942, ch. 13) the Governor is authorized to regulate employment on Sundays and holidays. Two laws were enacted in South Carolina in 1942 permitting work on Sunday in certain industries and under certain conditions. One of these laws (S. 936) authorizes the Commissioner of Labor to issue permits to allow employment on Sunday in machine shops on proof that the industry

<sup>3</sup> California, Connecticut, Iowa, Maine, Maryland, Nevada, New Hampshire, Pennsylvania, Rhode Island, Texas, Utah, and West Virginia.



involved is engaged in producing or processing goods for national defense and under Government contract. However, no employee conscientiously opposed to Sunday labor may be required to work on that day. The other act (S. 937) similarly permits women to work on Sunday in mercantile and manufacturing establishments engaged in producing goods for national defense under a Government contract.

*Child labor.*—In New Jersey (Acts of 1942, S. 104) a State Commission on Student Service was established to supervise the release of children 14 years of age or over from school for agricultural work during the war emergency. This commission is to be composed of 11 members appointed by the heads of the State departments of education, labor, health, agriculture, the director of the United States Employment Service for New Jersey, and the presidents of several civic groups.

The act establishes procedures authorizing the release of students only after the need has been determined by the commission. The hours of labor of any student thus released are limited to 8 hours a day and 6 days a week, or 10 hours a day and 5 days per week, whichever in the opinion of the commission is preferable. The wage rates paid to students must not be less than the wage rates paid to adults for comparable services. In addition, in case children are sent away from home, the act requires safe transportation and proper living quarters and supervision of the children. Students may not be released for referral to any position made vacant by reason of a labor dispute.

*Suspension of labor laws.*—In Connecticut, Massachusetts, and New Hampshire, the Governor is authorized to suspend all labor laws. The laws of Connecticut and New Hampshire were enacted in 1917, and provide that on the request of the Council of National Defense, the Governor may suspend or modify all laws relating to labor. A Massachusetts act of 1942 (ch. 13) empowers the Governor to suspend any law, rule, or regulation affecting the employment of persons when he deems it necessary to prevent delay or obstruction to war production.

*General war powers affecting labor.*—In Maine (Acts of 1942, ch. 305), whenever the Governor proclaims a state of emergency, he may utilize all the manpower and material resources of the State, whether public or private, for the assistance of the armed forces or the protection and welfare of the State or the United States. The Massachusetts act (Acts of 1942, ch. 13) is generally similar to the Maine act, but has more specific provisions relating to labor. As previously pointed out, it empowers the Governor to regulate labor on Sundays and holidays and to suspend labor laws. In addition, the Governor is authorized to control assemblages, parades, or pedestrian travel, in order to protect the physical safety of persons or property. Furthermore, he may regulate the sale of articles of food and household articles.

*Civilian mobilization.*—Under the provisions of a Maryland law, the Governor may, when he determines it necessary for the protection and welfare of the State, provide for the assignment of able-bodied male persons between the ages of 18 and 50, "not regularly and continuously employed," to work in occupations carried on by the State, counties, or the City of Baltimore, or by private employers, whenever "because of a state of war" the Governor finds such occupations essential for the protection and welfare of the State and the United States (Code 1939, art. 100, secs. 57-63).

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*Emergency antistrike powers.*—The Governor of North Dakota is empowered to commandeer and take for use any coal mine or public utility which may be necessary to save life and property in the event of any strike or lock-out or threatened strike or lock-out likely to endanger the life and property of the people of the State (Acts of 1941, ch. 221).

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## NEW LABOR-MARKET REGULATIONS IN CANADA

BASED upon a report of the Minister of National War Services and the Acting Minister of Labor on the growing scarcity of men for the Armed Forces and the war industries, order in council P. C. 2250, effective March 23, 1942, was issued providing for the restriction of the entry of males of the ages 17 to 45 years, inclusive, who are physically fit for military service "into certain occupations which are relatively unessential or can be satisfactorily filled by women or men who are beyond military age or are physically unfit for service with the armed forces."

The "certain occupations" referred to are—

1. Bookkeepers, cashiers, stenographers, typists, clerks, office appliance operators, messengers, salesmen and sales clerks, taxicab drivers.
2. Any occupation in wholesale or retail trade, advertising, and real estate.
3. Any occupation in or directly associated with entertainment, recreational or personal service, including but not restricted to theaters; film agencies; motion-picture companies; clubs; bowling alleys; pool rooms; sports; barbering and hair-dressing; domestic service; dyeing, cleaning, and pressing; hotels and lodging houses; laundering; restaurants, cafes, and taverns; funeral service, baths, guide service, shoe shining.
4. Any occupation in the manufacture or production of biscuits, confectionery, cocoa; bread and bakery products; aerated and mineral waters and other beverages; liquors, wine, beer; rubber products; tobacco, cigars, cigarettes; leather and fur products; textile products; furniture and upholstery; photography; printing, publishing, and engraving; radios, refrigerators, washing machines, and vacuum cleaners; jewelry and watchmaking; pottery and china; soaps, and toilet preparations and articles; mattresses; musical instruments; barber- and beauty-shop equipment; cameras and films; sporting goods; games, toys, and novelties.
5. Any occupation in the repair of clothing, boots and shoes, furniture and household equipment, jewelry or watches, musical instruments.

Another order in council (P. C. 2251), also effective March 23, 1942, declares that no male employed wholly or chiefly in agriculture shall enter into a nonagricultural employment except—

(a) Active service in any of His Majesty's armed forces by voluntary enlistment, (b) seasonal employment in a primary industry, or (c) compulsory military training if under the National War Services Regulations, 1940 (Recruits) it is established to the satisfaction of the National War Services Board concerned, that such person is not an essential worker in agriculture, unless he has obtained written permission from the National Selective Service Officer to enter such employment; and no person shall take into any such employment any male person wholly or mainly employed in agriculture unless such male person has obtained such permission.

Imprisonment for not to exceed 12 months or a fine not to exceed \$500 or both such imprisonment and fine are the penalties for the contravention of either of the above orders.

The duties, powers, and functions of the Minister of National War Services under the 1940 National War Services Act with reference to the conducting of national registrations and such surveys as may be required for effectively carrying out the provisions of the National Resources Mobilization Act have been recently transferred (by P. C. 2253) to the Minister of Labor.

## JOINT PRODUCTION ADVISORY COMMITTEES IN GREAT BRITAIN<sup>1</sup>

PRIVATE industries and Government ordnance plants in Great Britain are establishing joint production advisory committees as a means of further increasing output. Adoption of special measures to raise production came under special scrutiny in January 1942, when a trade-union delegation of Russians visited Great Britain. After inspecting war plants the spokesmen for the delegation commended the organization of production, but felt that there were unused reserves, and urged greater effort.

The problem was considered at a meeting of the central joint advisory committee to the Production Executive of the Cabinet. Trade-unionist members moved to appoint a small subcommittee to examine the existing machinery of production to ascertain whether it could not be improved materially. Concern was expressed by the general council of the Trades Union Congress regarding the reports of slackness, and it was felt that considerable improvement could be secured. A British labor leader stated that it was time the abilities and experience of the workers were linked up to production.

In addressing the House of Commons the Minister of Labor and National Service said that the Government was anxious that management and workers should be afforded the maximum opportunity for joint consultation on all matters of common interest, including production. Any machinery established should be developed by mutual agreement, he stated, and should not impair the general responsibility of the executives of trade-unions and employer organizations. He opposed a system that would infringe on the responsibility or control by executives of trade-unions over people who are assumed to be represented.

Employee participation in the consideration of production problems in individual plants is a natural outgrowth of the industrial policies adopted in the present war. Labor representation has been granted on numerous and varied governmental bodies,<sup>2</sup> including the joint consultative committee of the Ministry of Labor, the control boards under the Ministry of Supply, price regulation committees, appeal committees under the essential-work orders, and the Central Joint Advisory Committee to the Production Executive, already referred to. Labor did not have a similar part in the determination and application of policy with regard to industry in the last war. Present participation is based on recognition that labor has equal responsibility with employers for winning the war, cooperation makes for efficiency, and the knowledge gained by experience of all parties is essential in promoting the war effort. Production is likely to rise and fall with plant morale. In turn, morale is affected by the degree of the workers' realization that their contribution counts.

The Government and labor have shown considerable interest in the joint production committees. Care is being exercised, however, to prevent a growth that will not prove of the greatest advantage to the war effort. The Minister of Labor stated on February 19 in the House of Commons that it was his policy to promote the councils everywhere but that he was averse to creating separate committees in works for separate purposes. He added that there was a great deal of confused discussion about production committees and that he believed in works

<sup>1</sup> Data are from Great Britain, House of Commons, Parliamentary Debates, February 19, 1942; Economist (London), February 7, 1942; Manchester Guardian (Manchester), February 27, 1942; report from E. M. Hodgkinson, United States Embassy, London.

<sup>2</sup> See Monthly Labor Review, issue of March 1942 (p. 504).



councils. Shop stewards are apprehensive regarding the labor representation on production committees. Their council publicly opposed any attempt to appoint worker members dictatorially, as this would bring the whole plan under suspicion of the workers. The shop stewards look upon themselves as the natural representatives of labor, as they are elected officers and the officially recognized representatives of trade-unions in the workshops.

At a manufacturers' meeting held when the establishment of the committees was first being considered, the central committee of manufacturers was urged to delegate more power to its regional bodies to expedite action. The speaker also expressed the view that it would be a very serious matter for industry if any substantial share of the executive power of industry were transferred to bodies elected by workers.

A constitution for factory production committees in Government ordnance factories was adopted on February 26. It was signed by representatives of the Ministry of Supply and all the trade-unions having members in the ordnance plants. The joint bodies are to consist of representatives of workers and management in each factory, to arrange for the regular exchange of views between management and workers on matters relating to improvement of production and increase of efficiency. Questions of wages and working conditions are settled by collective agreement and are outside the jurisdiction of the production committees. The sphere of these committees is to increase efficiency and attain maximum output.

Each ordnance plant committee is to consist of 10 representatives of the workers, 10 representatives of the management, and the superintendent of the factory as chairman. Worker representatives are to be elected by all workers over 21 years of age who have worked for not less than 1 year in the plant in question. Due regard is to be given, in the elections, to the relative strength of the various unions represented. Election of worker members is to take place under union supervision. Management is to appoint its members. The term of the committees is 1 year. Meetings are to be held fortnightly. A joint control council for all the ordnance factories is to be presided over by the director general.

Although the plan for ordnance factories was the first to be adopted, the establishment of joint production committees is expected to spread. Even before the plan was proposed, delegations of workers had visited London at different times to request Government inquiries.

Various regional trade-union meetings have had the question brought before them, particularly in the engineering industry, but the plan may be applied to the entire trade-union movement. In industry generally, introduction of committees will, of course, be on a voluntary basis and not subject to Government approval as was necessary in the case of ordnance plants.



## PART-TIME EMPLOYMENT OF WOMEN IN GREAT BRITAIN <sup>1</sup>

IN COOPERATION with employers and employees, the British Government is urging munitions and other industries to adopt schemes

<sup>1</sup> Data are from Great Britain, House of Commons, Parliamentary Debates, February 26, 1942; Political and Economic Planning, Planning (London), No. 185; Oxford University, Institute of Statistics, Bulletin, January 31, 1942; and report of E. M. Hodgkinson, office of commercial attaché, United States Embassy, London.

for part-time employment of women who, owing to family and other responsibilities, are unable to accept full-time employment. The supply of married women or women doing necessary household work comprises approximately 11,000,000 persons, and, according to the Prime Minister, this is the largest reserve for industry and home defense. Although part-time work has been developed, the Prime Minister stated in December that it was not in the volume required in the months ahead. As married women were exempt from the conscription law,<sup>2</sup> the plan for maximum use of their services must be worked out on a voluntary basis and by direction.

Obstacles to the maximum use of the services of women with family responsibility are that they are often untrained for industrial work and therefore likely to have low per capita output; the time required for homekeeping and marketing is even greater than in peacetime; and the pay is not attractive, particularly if a margin of family income becomes liable to a higher rate of income tax. Yet many such women whose husbands are in the military services need part-time pay to supplement family income, and there is also the desire to do their share in the war effort. In some cases work is contingent on making arrangements for the care of children.

Part-time schemes of various kinds are operating successfully. In many factories the wives of full-time workers come in to work certain hours. In some cases the male employees insist that their wives work in the same department as themselves. In a total female force of 1,400 women in a small-arms firm 250 are part-time workers. The adjustment of hours for part-time workers varies between plants. One plant employs these women on a morning shift from 8 a. m. to 12:30 p. m., Monday through Saturday. Its afternoon shift is 12:30 p. m. to 5:30 p. m., Monday to Friday. The morning shift aggregates 27 hours a week and the afternoon shift 25 hours.

Arrangements of this kind prevent conflict with meal hours in the home and permit time for shopping. A disadvantage is that elimination of the lunch hour imposes additional burdens on the setters, charge hands, and foremen. Women seem to prefer to work steadily in either the morning or afternoon, depending upon which time of day means more to them in maintaining their homes.

As clean, light work attracts part-time workers, part-time employment has developed particularly in the London area and the West Midlands, both of which are centers of light engineering. In the North women complain of lack of opportunities for such employment.

Occupations in which women are doing part-time work include sorters, inspectors, assemblers, French polishers, shop assistants, typists, laborers, painters, enamel and varnish sprayers, operators of presses, drills, and capstans, and decorators of pottery.

It has been suggested that Government Departments take the lead by engaging part-time clerical workers on work that could be adapted to such a system without loss of efficiency. The Ministry of Labor has introduced part-time shift work in its claims and record office where unemployment books are sorted.

Certain firms have concentrated their part-time workers in a single factory or department. They are trained in the workshops and work alongside full-time workers. Maintenance of good relations between

<sup>2</sup> See Monthly Labor Review, February 1942 (p. 385).

the two groups is essential. For example, when part-time workers are being concentrated in a department, explanation should be made to the employees being moved out.

For employers the system necessarily entails extra burdens in record keeping, double payment of health and unemployment insurance, and double training. It is believed, however, that none of the difficulties employers or part-time employers experience are insuperable and that they can be solved by tact and understanding. In any event this kind of labor is expected to be an increasingly important source of manpower as the war progresses.



## CONSCRIPTION OF LABOR IN ITALY <sup>1</sup>

A DECREE was issued in Italy in the last part of February, which provides that men from 18 to 55 years of age will hereafter be subject to civilian labor service. It is understood that under the present provisions of the decree, women will be exempt from compulsory labor service. The male workers to whom the decree applies are those who are classified as laborers, those engaged in independent professions, and those who are unemployed. The employment of labor is no longer to be left to private initiative but is to be taken over entirely by the Government. The Under Secretary of State, who has been made the Commissioner for Employment, has the power to conscript labor forces from less vital industries and assign them for employment in armament factories, agriculture, or transportation. The Government may also close down industries not considered to be indispensable for the conduct of the war.

It is expected that the transfer of workers under the terms of this decree will result in a noteworthy shift in the population.

The purpose of the compulsory labor service, it is explained, is to satisfy the extraordinarily increased demands which "total war" has created in the sphere of industrial and agricultural production. It has been observed, however, that only a few weeks ago the working time in many industries was reduced because of insufficient electrical power, and it is concluded, therefore, that the reason for the conscription of labor lies less in the needs of national production than in those of the common war-production program of the Axis countries. It is suggested in this connection that the conscription of Italian workers for service in Germany was probably the subject of the conversations with Field Marshal Goering during his recent visit in Rome. The underlying principle, it is noted, is that labor can be just as important an export as raw materials and that when the difficulties of transportation make impractical the shipment of raw materials from Germany to Italy, it is expedient for the authorities, instead, to send the Italian laborers to work on the raw materials in Germany.

The Italian press, it is stated, is already undertaking to explain that in answer to the tremendous arms program of the enemy, every employable hand in the country must submit itself to the needs of the nation and that the "new labor front must stand shoulder to shoulder with the Germans and give more men and more means for the gigantic German economy."

<sup>1</sup> Data are from report of Harrison Lewis, secretary of United States Legation at Bern, Switzerland, based on *Neue Zürcher Zeitung*, February 27, 1942, and *Der Bund* (Bern), March 6, 1942.



# Productivity of Labor and Industry

## PRODUCTIVITY IN SLAUGHTERING AND MEAT- PACKING INDUSTRY, 1919-41<sup>1</sup>

### Summary

OUTPUT per man-hour in the slaughtering and meat-packing industry increased by 75 percent between 1919 and 1941. The advance, however, was very irregular and was frequently interrupted by recessions. The rise was concentrated in three periods—1919-22, 1929-33, and 1937-40.

No fundamental technological changes were responsible for the increase in productivity. Indeed, most types of equipment in current use were developed prior to the twentieth century. The technical progress made in recent years has been limited to the introduction of auxiliary equipment, the improvement of existing types of machinery, and the improvement of methods of processing meat. There also seems to have been some emphasis on the attainment of higher labor efficiency through job specialization, the adoption of incentive plans, and other familiar devices.

Production increased by 36 percent between 1919 and 1941. In general, however, the movement was erratic. Except for a sharp decline in the single year 1935, the volume of output during the great depression was not appreciably different from the volume in earlier years. Between 1937 and 1941, production advanced 31 percent to reach the highest level of the period 1919-41.

The general rise in production was accompanied by changes in consumer preferences and hence in the character of the industry's output and livestock consumption. Fresh meats, particularly pork, veal, and mutton, gained in favor; canned and cured meats, on the whole, diminished in importance. The trend in cattle slaughter was toward lightweight yearlings: the average liveweight of calves, sheep, and lambs increased, and hog weights changed but little.

Although production increased between 1919 and 1941, there was a net decline in employment between the same two years. The number of wage earners fell from about 164,500 to 156,700, or almost 5 percent; the reduction in man-hours was 22 percent. Most of the decline occurred during the early part of the post-war period, when production fluctuated near the 1919 level and productivity (measured either as output per man-hour or as output per wage earner) rose substantially. After 1932, wage-earner employment recovered considerably, largely in consequence of the reduction in average weekly hours.

Although the war effort and the food-for-freedom program will stimulate both production and employment, it is not likely that employment will again attain the 1919 peak.

<sup>1</sup> Prepared by Arthur W. Frazer under the supervision of Irving H. Siegel, in the Productivity and Technological Development Division, W. Duane Evans, chief.

### Characteristics of the Industry

The slaughtering and meat-packing industry as here defined includes three related Census industries: "meat packing, wholesale", "sausage, meat puddings, headcheese, etc.", and "sausage casings". The first, which is the most important of the three, embraces establishments engaged in wholesale slaughtering and in the preparation of fresh, canned, and cured meats. In 1939, it employed 120,500 wage earners, and its products were valued at \$2,650,000,000, of which amount value added represented about 15 percent. According to the Census, "meat packing, wholesale" ranked second among all industries in cost of materials, etc., and eighth in value added by manufacture.<sup>2</sup> The other two related Census industries are much less important. "Sausage, meat puddings, headcheese, etc.,"<sup>3</sup> includes establishments which in 1939 employed about 9,100 wage earners and produced sausage and prepared meats valued at \$149,000,000. "Sausage casings" employed fewer than 1,000 wage earners in 1939 and produced casings valued at about \$6,000,000.

Some primary products are common to more than one of the three Census industries, and, as might be expected, some establishments engage in the incidental manufacture of secondary products which are customarily made in other industries. In 1939, wholesale meat packing accounted for 58 percent of the value of the entire output of sausages and prepared meats, 48 percent of the entire value of sausage casings, 13 percent of the value of shortening production, and 22 percent of the value of oleomargarine. The percentages were even higher in earlier years.

Though the slaughtering and meat-packing industry is composed mainly of small establishments, it is dominated by a few very large firms. In 1935, for example, the "Big Four" operated 94 plants which accounted for over 55 percent of the total value of output, whereas the four next largest firms accounted for an additional 8 percent.<sup>4</sup> The large national packers engage in the distribution of meat to regions where the local supply is not adequate to the demand. Small packers depend upon their own communities for markets as well as for supplies. Pork packers usually operate on a larger scale and serve a wider area than do packers of beef, veal, or mutton.

As early as 1850, slaughtering and meat-packing establishments began to concentrate in midwestern centers such as Chicago, St. Louis, Kansas City, and Omaha. Factors considered in the location of these packing houses were proximity to large stock supplies, availability of labor, and shipping facilities. Later, the packers began to drift farther westward toward the great grazing areas and to establish regional packing houses, particularly in the Midwest and South. This movement was hastened by the improvement of refrigeration in transportation, which made it more practicable to ship meat than livestock. In 1939, however, Illinois accounted for one-fifth of the employment in the industry, and the largest packers were still situated in the Midwest, particularly Minnesota, Iowa, and Illinois.

<sup>2</sup> Custom slaughtering, a relatively minor activity of wholesale meat packing, is here excluded from consideration.

<sup>3</sup> In 1939, the Census expanded this industry to include certain establishments which had been included in "Food preparations, not elsewhere classified." In that year, the more inclusive Census industry employed about 11,300 wage earners and its products were valued at \$208,000,000. For the sake of chronological comparability, the old Census definition has been retained in the Bureau's study and necessary adjustments have been made.

<sup>4</sup> U. S. National Resources Committee, *The Structure of the American Economy (1939)*, Part I, p. 240. Washington, 1939.

The slaughtering of livestock was once performed principally by the farmer or local retail butcher, but the development of factory methods of meat production stimulated the development of wholesale slaughter. According to statistics prepared by the Bureau of Agricultural Economics, the importance of wholesale slaughter of the various kinds of livestock has increased even since 1919. The greatest change occurred in the case of veal, for which the percentage of total dressed-carcass weight rose from 59.5 in 1919 to 76.1 in 1940. During the same period, some changes also occurred in the proportion of wholesale slaughter Federally inspected. The percentage of inspected hogs (in terms of dressed-carcass weight) declined from 92.5 in 1919 to 87.0 in 1940, while the percentage for beef fell from 91.2 to 79.6. The greater decline for beef reflects a tendency toward decentralization. A large majority of the packing houses established in recent years in populous States like Pennsylvania, Ohio, California, and Texas have confined their business to local markets and hence lie outside the scope of Federal inspection.

The first step in the production of beef is the disassembly of the carcass. Conveyors, which are said to have been used first by meat packers, carry the carcasses of cattle to the stations where they are skinned, eviscerated, Government inspected, split into halves, and washed. The halves are then moved to refrigeration rooms to be chilled for 24 to 36 hours. After proper cooling, the halves are wrapped for shipping or are split into quarters, carved into wholesale cuts, and shipped to retailers or to branch packing houses. Almost 10 percent of all beef butchered is sold in frozen, cured, or canned form. Canned beef is usually processed from lighter and less desirable cattle.

The slaughtering and dressing of beef involve manual operations mainly, but the preparation of pork is facilitated by the use of mechanical equipment. After the hog is slaughtered, it is dumped mechanically into a scalding tub. The carcass is then conveyed to the scraper or dehairing machine, which, with its rapidly revolving knives, removes the scurf and most of the hair. The carcass is then moved on an overhead rail past a line of workmen and inspectors, who, in sequence, perform final scraping, remove the viscera, inspect the carcass and head, pull the leaf lard, trim the carcass, and send it to the coolers. After being chilled for 24 hours or longer, the carcass is sent to the cutting department, where various cuts are made according to the demand of the market served by the packing house. Modern pork-cutting rooms are equipped with conveyor chains and tables which move the meat past the workmen, with power saws and knives, and with chutes and other equipment which facilitate the handling of trimmings and other byproducts. In contrast to beef, about 40 percent of all pork slaughtered is cured (by the dry-salt, dry-cured, or sweet-pickle method). Curing may require up to 75 days. About 80 percent of cured pork is smoked. The object of smoking is to insure preservation and to improve the flavor and appearance of the meat.

It has been estimated that there are about 140 byproducts of slaughtering and meat packing. Among these are lard, sausages, sausage casings, hides, edible serum albumen, dried blood (used in making cattle feed and fertilizer), horns, hooves, bones, animal hair, fats and stearins (used in making oleomargarine, cooking oils, tallow, etc.), and glands and membranes (used in making pharmaceuticals).

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## Changes in Productivity and Other Indexes

During the period 1919-41 the index of output per man-hour in the slaughtering and meat-packing industry showed a net increase of 75 percent. In 1919 the index was at 57.6 percent of the 1939 base level and in 1941 it stood at 100.7 (table 1). Between 1919 and 1922, the index advanced steadily, reaching 75.3 in the latter year. During the remainder of the first decade, the index showed no appreciable trend; but in the early 1930's, it rose significantly—from 80.7 in 1930 to 90.8 in 1933. Following a decline from the 1933 level, productivity advanced to successively higher peaks in 1938, 1939, and 1940. The index in 1941 fell slightly below that of 1940.

TABLE 1.—Summary Indexes for the Slaughtering and Meat-Packing Industry<sup>1</sup>

[1939=100]

Year	Production	Number of wage earners employed	Man-hours worked	Output per—		Pay rolls	Unit labor cost
				Wage earner	Man-hour		
1919	86.5	126.0	150.3	68.7	57.6	123.0	142.2
1920	80.6	110.2	131.8	73.1	61.2	( <sup>2</sup> )	( <sup>2</sup> )
1921	75.1	92.6	107.0	81.1	70.2	91.0	121.2
1922	83.1	91.1	110.4	91.2	75.3	( <sup>2</sup> )	( <sup>2</sup> )
1923	92.4	105.2	128.8	87.8	71.7	100.2	108.4
1924	96.6	101.1	123.2	95.5	78.4	97.9	101.3
1925	89.7	96.0	117.3	93.4	76.5	95.9	106.9
1926	93.2	94.2	115.6	98.9	80.6	96.1	103.1
1927	92.0	95.0	117.5	96.8	78.3	97.1	105.5
1928	94.7	96.1	119.8	98.5	79.0	98.6	104.1
1929	95.4	98.3	122.6	97.0	77.8	100.3	105.1
1930	93.7	94.2	116.1	99.5	80.7	95.7	102.1
1931	91.0	86.5	104.4	105.2	87.2	82.1	90.2
1932	87.1	83.3	99.0	104.6	88.0	65.9	75.7
1933	91.3	92.6	100.5	98.6	90.8	69.2	75.8
1934	94.1	113.9	115.3	82.6	81.6	94.6	100.5
1935	79.8	96.4	95.9	82.8	83.2	84.2	105.5
1936	92.8	103.0	107.1	90.1	86.6	91.9	99.0
1937	89.9	105.4	106.7	85.3	84.3	104.9	116.7
1938	94.7	100.3	100.4	94.4	94.3	101.9	107.6
1939	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1940	109.7	109.0	107.9	100.6	101.8	108.0	98.5
1941 <sup>3</sup>	117.9	120.0	117.1	98.4	100.7	128.0	108.6

<sup>1</sup> The index of production was derived for the odd-numbered years 1919-39 from figures reported in the U. S. Census of Manufactures and completed for all other years by means of U. S. Department of Agriculture data published in *Agricultural Statistics, 1939; Livestock, Meats and Wool Market Statistics and Related Data, 1940; and Livestock, Meats and Wool Market Reviews and Statistics for Week Ended January 24.*

The employment and pay-rolls indexes were computed for census years from figures relating to "meat packing, wholesale," "sausage, meat puddings, headcheese, etc.," and "sausage casings." The two indexes were completed for the other years by means of Bureau of Labor Statistics series (adjusted to 1939 Census levels) for "meat packing, wholesale" only. The 1939 Census figures for pay rolls and employment may be too low in comparison with those for earlier years. If the 1939 figures are underestimates, then the employment and pay-rolls indexes for 1938, 1940 and 1941 are also too low.

The man-hours index was computed from the employment index and a series of average actual weekly hours for "meat packing, wholesale." The hours series is an extension of the one shown in the WPA National Research Project Report S-1, *Production, Employment, and Productivity in 59 Manufacturing Industries, 1919-36*, by Harry Magdoff, Irving H. Siegel, and Milton B. Davis (Philadelphia, 1939), Part Three, p. 133; the figures used in the extension include Bureau of Labor Statistics average weekly hours (see table 2) and average monthly hours derived from statistics compiled by the Bureau of the Census in cooperation with the Bureau of Labor Statistics.

The indexes of output per wage earner, output per man-hour, and unit labor cost were derived from other indexes in this table.

<sup>2</sup> Not available.

<sup>3</sup> Preliminary.

The rise in production between 1919 and 1941 was not so great as the rise in productivity; the net increase was only 36 percent.

Between 1919 and 1921, production declined from 86.5 to 75.1, but then recovered sharply to reach 96.6 in 1924. Thereafter it remained on a plateau for several years. During the great depression, the level of output was not greatly affected. The lowest point of the 1930's, 79.8, occurred in 1935 in the wake of a severe drought and Federal efforts to curtail hog production. In 1938, output began to surge upward, rising from 89.9 in 1937 (less than four units above the 1919 index) to 117.9 in 1941, the peak for the whole period.

Significant changes in the character of production occurred during the period embraced by the Bureau's study. According to Census statistics, the output of fresh meat increased about one-third between 1919 and 1939; the production of canned and cured meat, on the other hand, declined almost 12 percent. Of all the cured meats, sausage alone recorded a gain during the two decades. Fresh pork, veal, mutton, and lamb increased by 55 to 60 percent, but fresh beef advanced only 13 percent. The shift to fresh meat from canned and cured meat was doubtless encouraged by the improvement of refrigeration in packing houses, in transportation, in retail stores, and in the homes of consumers.

Although production increased during the period, the number of wage earners and the volume of man-hours worked both declined. The net reduction between 1919 and 1941 was 4.8 percent in the former and 22.1 percent in the latter. Employment reached its low point, 83.3, in 1932; man-hours were lowest (95.9) in 1935. After 1932, employment recovered, partly in consequence of the reduction of the length of workweek (see table 2). In 1932, the average length of the workweek was 46.3 hours; by 1934, under the influence of the NRA, the average was lowered to 40.8. With the invalidation of NRA, average hours rose slightly but then declined again toward the 40-hour level. The closeness of the indexes of output per wage earner and output per man-hour in 1934 and subsequent years reflects the relative stability of weekly hours during this interval.

The index of unit labor cost in the slaughtering and meat-packing industry declined 23.6 percent between 1919 and 1941. Between 1919 and 1924, unit labor cost was reduced almost 29 percent, while man-hour productivity advanced 36 percent. Though there was no significant net change in labor cost between 1924 and 1940, wide fluctuations were recorded. Following the 1919-24 decline, labor cost, like man-hour productivity, remained almost stationary for about 6 years—reflecting the stability of average hourly earnings. Between 1930 and 1932, unit labor cost and hourly earnings were both reduced sharply; the index for the former fell from 102.1 to 75.7, while hourly earnings declined almost one-fifth.<sup>5</sup> The drop in the index of unit labor cost was soon canceled by a steep rise to 100.5 in 1934, while hourly earnings advanced only 14 percent (table 2). The 18-percent increase in hourly earnings between 1936 and 1937 was accompanied by a like increase in unit labor cost. Between 1937 and 1940, while the industry enjoyed steady increases in production and productivity and hourly earnings remained almost level (there was a net increase of only 3 percent), unit labor cost fell 16 percent. Both unit labor cost and hourly earnings advanced 9 percent between 1940 and 1941 as productivity remained practically constant.

<sup>5</sup> National Industrial Conference Board. *Wages, Hours, and Employment in the United States, 1914-1936* (pp. 126, 127). New York, 1936.

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TABLE 2.—Hours and Earnings in the Slaughtering and Meat-Packing Industry, 1932-41<sup>1</sup>

Year	Average weekly hours	Average hourly earnings	Average weekly earnings	Year	Average weekly hours	Average hourly earnings	Average weekly earnings
		Cents				Cents	
1932.....	46.3	46.5	\$21.61	1937.....	41.0	66.5	\$27.27
1933.....	43.3	46.2	20.00	1938.....	41.0	68.8	28.10
1934.....	40.8	52.8	21.93	1939.....	40.6	68.6	27.85
1935.....	40.4	55.9	22.84	1940.....	40.2	68.6	27.60
1936.....	42.2	56.5	23.89	1941.....	39.6	74.1	29.35

<sup>1</sup> Data are from U. S. Bureau of Labor Statistics. Because of some differences in size of the samples, the products of average weekly hours and average hourly earnings do not necessarily equal the average weekly earnings shown in the last column.

### Factors Affecting Productivity

Although hand labor is still a very important element in meat production, much progress has been made in the application of machinery. As late as 1880, little or no mechanical equipment was used in the industry, but a decade later, mechanical refrigeration, power-operated machines and hoists, rendering tanks, cutters, powered-sausage grinders, stuffers, and similar devices were being introduced.<sup>6</sup> Mechanical handling equipment has long been common. The speed of production on the killing floor, for example, is fixed by an overhead conveyor system which moves the carcass through that department at a constant rate and, finally, into the cooler. Power trucks have improved efficiency in the moving of meat between departmenty. Finished products are brought to the wrappers and packers by gravits. chutes and conveyor tables.

Mechanization has made particular progress in pork departments. Machinery used for the cleaning and dehairing of hog carcasses has been greatly improved. A recent innovation, dating from about 1930, is a two-way dehairer combined with a singeing attachment, which is capable of handling up to 750 hogs per hour.<sup>7</sup> At one time, pork carcasses were cut on stationary tables, and workers spent a substantial part of the time shoving the meat from one to another. Now the conveyor makes possible the steady flow of products to the worker, allowing him to spend his entire time in knife work. Power saws and mechanical knives have replaced hand saws and ordinary knives in the cutting rooms. In the sausage department, diminution machines have been introduced. In the lard and shortening processes, votators, which were introduced about 1930, cool, emulsify, and whip the lard or shortening faster and more thoroughly.

There have also been improvements in methods of processing meats and meat products. Refrigerator systems now chill warm carcasses more rapidly without frosting and with less shrinkage. Special ultra-violet lamps have recently been installed in coolers to protect meat from mold and bacteria at temperatures high enough to speed the enzymatic action which tenderizes meat. New techniques of curing and smoking meat have reduced the length of exposure to curing and smoking agents and decreased losses resulting from shrinkage and surface spoilage. The dry rendering of lard, inaugurated in 1922, has been widely adopted.

<sup>6</sup> The National Provisioner, April 12, 1941, p. 17: The Status of the Industry When the Provisioner was Founded.

<sup>7</sup> Dupps, J. J., Jr.: Trends in Design and Selection of Packing-House Equipment. (Paper presented at a meeting of the Institute of American Meat Packers, New York City, October 16, 1931.)



Productivity increases have also been effected by the introduction of incentive-payment methods, the elimination of unnecessary handling by means of changes in plant lay-out, the combination or specialization of jobs, and similar measures. The most prevalent incentive plan in the industry is the production-bonus system of wage payment. Nearly one-fourth of the workers included in a 1937 survey were employed on such a basis. These production-bonus workers were employed, however, in but 40 of the 1,160 establishments in the sample covered in the study; and the 40 plants were among the larger ones.<sup>8</sup> Another pay plan, the straight-time plan, guarantees to employees 52 equal weekly wage payments in return for a predesignated volume of work for the year. The primary objectives are to stabilize employment and hold to a minimum the loss of skilled workmen to other industries.<sup>9</sup>

### *Outlook for the Industry*

The volume of production in the slaughtering and meat-packing industry depends largely on the quantity of livestock available, and this in turn is dependent on the relative prices of livestock and grain and other feed. The increased prices obtained for cattle and hogs in 1941 and 1942 and the favorable livestock-feed price ratios indicate that greatly increased supplies will be available to meat packers. The 1941 fall pig crop was 18 percent greater than that of 1940. The 1942 spring pig crop, according to the Department of Agriculture, is expected to reach 62,000,000 head—greater than the crop of any other year on record and 28 percent higher than that of 1940. The total number of cattle and calves on farms in 1942 is expected to be greater than at any time since 1934. In 1941, meat production was already 7 percent higher than in 1940, the previous peak year.

The demand situation is also very favorable. Federal purchases under the food-for-freedom program in 1942, first estimated to be equivalent to 12,000,000 hogs will doubtless be greater. British needs, as outlined by lend-lease commitments for the period up to June 30, 1942, include 1,500,000,000 pounds of pork and lard, or the equivalent of about 9,000,000 hogs. Consumer purchases are also being buoyed up by increases in wage-earner income and by efforts of Federal agencies to popularize improved diets including substantial amounts of meat.

In view of the great demand and the anticipated volume of supplies, production in the slaughtering and meat-packing industry ought to reach successively higher peaks in 1942 and 1943. It is estimated that 54 or 55 million hogs will be slaughtered in 1942 as compared with 46,500,000 under Federal inspection in 1941; the 1923 peak was 53,000,000 head. Altogether, 9,800,000 cattle were slaughtered under Federal inspection in 1941, or 12 percent over the 1940 total. The number of cattle to be slaughtered in 1942 will be over 10 percent above the total for 1941.

The level of meat production in the more distant future is difficult to anticipate. Some indication of the probable trend is to be found

<sup>8</sup> See Monthly Labor Review, October 1939 (p. 941): *Earnings and Hours in the Meat-Packing Industry, 1937*.

<sup>9</sup> A study by the Minnesota American Legion Foundation reports that the introduction of a guaranteed straight-time plan for employees at the Geo. A. Hormel & Co. plants has increased productivity nearly 15 percent.

in the shift of Southern farm acreage from cotton to wheat and feed crops and the increase in livestock feed throughout the Corn Belt. It is anticipated that the average weight of hogs marketed will increase with the continued recovery in the demand for lard and the persistence of a favorable corn-hog ratio.

In the next 2 or 3 years, the volume of employment in slaughtering and meat packing will probably continue to rise. In 1941, wage-earner employment was about 10 percent higher than in 1940; the total was greater than in any other year except 1919. Man-hours in 1941 were 9 percent higher than in 1940, but still below the high levels of the decade following the first World War. Even if productivity continues to rise as in the past, the unprecedented demand will require additional employees. The preliminary figures shown in table 1 indicate, however, that slight declines in output per wage earner and output per man-hour accompanied the employment and man-hour increases between 1940 and 1941. It is not unlikely that productivity will continue to decline somewhat below recent levels with the loss of skilled labor and the hiring of less qualified personnel.<sup>10</sup>

### OPINIONS OF EMPLOYERS ON LENGTH OF WORKWEEK

HOURS of work of approximately 8 per day and 48 per week for employees are the maximum for efficiency, according to opinions obtained by the Industrial Relations Section of Princeton University from executives of 140 companies in various industries employing 2,000,000 men and women.<sup>11</sup> About two-thirds of the executives expressed the judgment that the 8-hour day and 48-hour week are the optimum for maximum, sustained production in war industries. Among executives of 128 companies, the number favoring the 48-hour week for male production workers was more than five times the number favoring any other particular workweek, as shown by the following tabulation.

	Number	Percent of total
Total companies.....	128	100
Companies believing optimum length of workweek to be—		
40 hours.....	12	9.4
44-45 hours.....	6	4.7
48 hours.....	69	53.9
48-50 hours.....	13	10.1
52-55 hours.....	13	10.1
56 hours.....	5	3.9
58 hours.....	2	1.6
60 hours.....	8	6.3

Limits stated to be the optimum for efficiency ranged from 40 to 60 hours. Variations depend upon a number of factors; these are, principally, the physical effort involved, the speed and intensity of the work, and the physical capacity of the workers. Opinions ap-

<sup>10</sup> According to figures shown for a group of establishments covered in a study of labor productivity and displacement in the slaughtering and meat-packing industry (Monthly Labor Review, November 1932), productivity in livestock slaughter was lower in 1917-19 than at any other time in the period 1914-32.

<sup>11</sup> Optimum Hours of Work in War Production. By J. Douglas Brown and Helen Baker. Princeton, Princeton University, Department of Economics and Social Institutions, Industrial Relation Section, 1942.

peared unanimous that a schedule of less than 40 hours does not increase individual productivity and that hours above 60 a week definitely decrease productivity and increase absences and accidents. Also, it was the general opinion that when work is light and working conditions are good, men are more likely to have higher productivity when working more than 48 hours weekly than when working fewer hours, and that this is especially true if a man can set his own pace.

A lower average number of working hours is indicated for women than for men, according to the opinion and experience of this group of executives. Physiological limitations and domestic arrangements make it difficult for women to work more than an 8-hour day. Domestic requirements often interfere with a regular 6-day week. Although a 48-hour schedule under favorable conditions is not likely to be detrimental to a woman's health, household and family responsibilities make the 40-hour week the more desirable.

A 7-day week is strongly opposed by the executives of the companies surveyed. Experience has shown that when a 7-day week is worked by employees even for a short time, productivity declines and both absenteeism and accidents rise. As the 7-day schedule for employees has adverse effects on both output and employee health, many companies question the advisability of 7-day operation until enough workers can be recruited and trained to man another shift. Others state that, considering the labor shortage, the best use of the available manpower is in three 48-hour shifts, with maintenance work performed on Sunday to relieve bottlenecks in production.

In lengthening the workweek, special attention to attendance and safety are advocated. Absences invariably increase when hours exceed 48 a week, and there is a probable increase in accident frequency. Losses owing to absences and turn-over may be lessened by attention to workers' health and housing and assistance in caring for children. In a few companies excellent returns have resulted from improved safety engineering, even under circumstances normally resulting in an increase in accidents.

Employees should be informed on the need for longer hours and the results in terms of productivity. Workers are eager to do their part in aiding the war effort. Management is responsible for determining the hours that will yield the best long-term production. Employees will be reminded of the importance of their own work if bulletins and charts are posted showing output in relation to quotas.

In the opinion of this group of employers the length of the emergency period should be considered in determining the most efficient schedule of work for individual employees. American experience and that of Great Britain after Dunkirk proved that hours over 60 per week do not increase production proportionally, except for short periods. The effects of excessive overtime on health and mental condition show up quickly in lost time and lowered efficiency. Therefore optimum hours must be set in terms of months and years and not a few weeks' production. Although the immediate situation may require maximum production from those already at work, the probable length of the war makes it imperative to hire and train more workers as quickly as possible to permit the reduction of the workweek for those already at work. The major conclusions reached in the study under review are that the most effective workweek is approximately 48 hours, and that training for war industry must be enlarged and speeded.



## *Employment Conditions*

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### UNUSED MANPOWER IN PENNSYLVANIA ANTHRACITE AREA

FOR more than a decade the economic situation in the Pennsylvania anthracite area has been growing steadily worse. The throwing out of work of tens of thousands of mine workers, as a result of the decline in the anthracite market, has had the most serious effects in mass unemployment and disintegrating communities. Essentially an area of a single industry, this region has offered few other sources of employment for the idle miners and, because of an almost total lack of heavy manufacturing industry, the stimulating effect of the vast war production program has hardly touched the anthracite field. As a result there has remained there, unused, a very large amount of labor, much of which is highly trained, at a time when the war program is making insistent demands for more and more workers.

In an effort to remedy this situation, in both its local and national aspects, Congress in December 1941 created a special commission to investigate conditions in the anthracite area and make recommendations for improvement.<sup>1</sup> This Federal Anthracite Commission on April 2, 1941, transmitted its report to the President and Congress, together with recommendations for improvements in economic conditions in the anthracite regions.

The resolution required the Commission in making its investigations to "take into consideration, among other relevant factors, (a) the availability in such regions, for national-defense activities, of skilled and unskilled workers, factories, and housing and other facilities, and (b) possible new and extended uses for anthracite coal and the by-products thereof." In accordance with these instructions, the report and the recommendations are concerned with both long-term and short-term problems and remedial measures. Special attention, however, was given to the possibilities of utilizing the idle resources of the anthracite area for war-production purposes.

In submitting its report to the President, the Commission pointed out that the anthracite industry has suffered continued depression despite unprecedented industrial activity in the country generally, and that the production of silk and rayon goods, which is the chief manufacturing activity in the area, has been dealt a crippling blow by the war emergency. No Government-financed war plants have been located in the anthracite-producing counties, and no major Government supply contracts have been placed there. Thus, in

<sup>1</sup> The Federal Anthracite Commission thus established consists of two members of the Senate, two members of the House of Representatives, and representatives of the Bureau of Mines, the National Resources Planning Board, and the Interstate Commerce Commission. The members of the Commission are Patrick J. Boland (chairman), Joseph F. Guffey, Ernest I. Lewis, Ralph J. Watkins, James J. Davis, Ivor D. Fenton, and R. R. Sayers (secretary).

spite of the fact that the anthracite area has, through its vocational-training programs, trained thousands of workers in war occupations, these workers have been forced either to remain idle or to seek jobs in war plants outside the area. It was pointed out also that the anthracite area still has almost 50,000 families on relief, and many thousands on part-time or substandard jobs.

### *Recommendations of the Commission*

#### IMMEDIATE REMEDIAL MEASURES

The investigation made by the Commission shows that the anthracite area has substantial possibilities for industrial expansion. The most noteworthy advantages of the area consist of unused manpower with mechanical aptitude and industrious habits, a reserve of community facilities (including housing) and accessibility both to sources of industrial materials and to end-product plants and markets. The area is 100 to 150 miles from the Atlantic seaboard, and is well protected by mountains. The Commission strongly recommends that the war agencies of the Federal Government give careful consideration to the suitability of the area for the location of necessary war plants.

As the anthracite area does not have widely diversified industries forming a nucleus around which war plants can be organized, it is proposed that a State engineering organization be created to make surveys in cooperation with communities and local organizations, and to furnish complete plans for the organization and operation of any given plant when necessary. Establishment of industries which are adapted to the long-term needs of the area should be the primary objective. The Commission also advocates that the vocational-training program be maintained, as the war effort requires large numbers of persons with specialized training and abilities, particularly in the metal-working industries.

Several recommendations were made in regard to the production and consumption of anthracite coal. In order to reduce mining hazards and pumping costs and to prevent loss of large reserves, comprehensive surveys of mine flooding and plans for drainage tunnels and for prevention of inflow should be pressed to completion. Work should be started without waiting for the completion of the entire survey, in order to help to absorb unemployed labor from the mining industry. The Commission also recommends further investigation of the development of stokers and other equipment which will allow anthracite to compete more equally with oil, on a convenience basis. In addition, it is suggested that an investigation be made to revive and expand industrial uses for anthracite. Immediate action in this field could help to relieve coke or possible oil shortages that develop as a result of the war.

The present unsettled conditions resulting from the war can have a very marked influence on the demand for anthracite. A shortage of oil and coke will transfer an additional domestic-heating load to the anthracite industry and might increase the demand as much as 15 or 20 million tons a year. Anthracite is well adapted to storage and can be produced and shipped to the consuming centers at the most suitable time. It was therefore recommended that anthracite producers undertake an energetic program to aid consumers in converting

domestic equipment to the use of this fuel, as well as to make plans to meet the increased demands which may develop from this source.

#### LONG-TERM MEASURES

As a long-term method of improving conditions in the anthracite area, the Commission recommends that the Federal Government establish in the area an anthracite mines research station under the Bureau of Mines. The function of this agency would be not only to develop and investigate new and extended uses for anthracite, but also to serve as a center of organization for the study of mining methods for the mine-water survey, and for the engineering organization concerned with the industrial development of the area. Because of the comparatively low production per man-day in anthracite mines, it is also suggested that a thorough investigation be made by Federal and State agencies of methods of reducing mining costs.

With a view to the adoption of a vigorous program of reforestation, the Commission urges that the Allegheny Forest Experiment Station, which is operated by the Federal Government, be given adequate support to expedite completion of its economic survey of the Anthracite Forest Region. Preliminary results show that many men can be employed in improving forest protection, in increasing the timber-producing capacity of the area, and in restoring the natural beauty of the ridges.

In concluding its recommendations, the Commission suggests that an agency concerned with long-range improvement of the anthracite area be established. Pending the creation of an official regional planning commission, this function could be initiated immediately by a regional office of the Pennsylvania Planning Board. This proposed agency would concern itself with the long-range problems of economic adjustment in the anthracite area. It would concern itself also with measures for reviving the anthracite industry, conserving anthracite reserves, and analyzing means of reducing costs of mining, marketing, and transporting anthracite.

#### *Economic Conditions and Industrial Development*

The Pennsylvania anthracite area covered by the report of the Commission contains more than nine-tenths of the total anthracite deposits in North America, and produces nearly all of the total output. This area covers slightly less than 500 square miles, all in northeastern Pennsylvania.

The economy of the anthracite area has suffered a grave setback as a result of the decline in mining operations, mainly as a result of the loss of markets to competitive fuels, particularly to fuel oil. Thus, the production of anthracite in 1941 was only 54,000,000 tons, compared with 100,000,000 tons in 1917. Similarly, employment dropped from a total of 154,000 miners averaging 285 days of work, in 1917, to 91,000 miners averaging 186 days, in 1940. The anthracite industry has been unprofitable since 1930; in 1939 it incurred a deficit of \$18,000,000.

Manufacturing is secondary to mining in the economy of the area, having in 1939 about four-fifths as many workers as mining. The bulk of this employment, however, was in silk and other textile indus-



tries employing mainly wives and daughters of miners and paying low wages. Employment has declined less in manufacturing than in mining, falling from 71,000 in 1929 to 52,000 in 1939, but recently the silk industry suffered drastic curtailment with the cessation of silk imports.

The large decrease in employment in the major and minor industries of the area has resulted in economic and social consequences that appear to be forcing the area to the verge of disaster. Real-estate values and collectible taxes have declined at least 50 percent. Since 1933, over \$169,000,000 has been spent for WPA and more than \$140,000,000 for other types of public assistance in the five important anthracite counties (Lackawanna, Luzerne, Carbon, Schuylkill, and Northumberland). This amounts, over the period, to \$268 per capita as compared with only \$183 per capita for the rest of Pennsylvania, and \$142 per capita for the United States as a whole. Together with CCC and NYA funds, total relief expenditures in this region since 1933 approach one-third of a billion dollars.

In the five important anthracite counties, there was a loss of population during the period from 1930 to 1940, and since the beginning of the defense program the rate of population loss has increased sharply. Thousands of workers, including nearly all of the available skilled labor, many of the semiskilled and unskilled workers, and many graduates of vocational training courses, are moving to nearby States. Owing primarily to the migration of workers out of the area, unemployment has declined materially. The number of persons registered for work in these counties declined from 80,000 in January 1940 to 48,000 in January 1942.

### *Factors in the Outlook for the Anthracite Region*

As previously stated, conditions resulting from the war are likely to have a marked influence on the demand for anthracite. A shortage of oil and coke promises to transfer a heavy domestic-heating load to the anthracite industry. On the other hand, competition to be faced after the emergency is over may be somewhat different from that in the past, possibly involving less competition from fuel oil but more from coke and some grades of bituminous coal.

The price paid by the consumer for anthracite reflects the royalties, mining costs, taxes, freight rates, pumping costs, and price structure, for various sizes. The main reason for the high mining cost, however, is the low production rate. Anthracite production per man-day is only about 3 tons, as compared with 5 tons in bituminous mining. To some extent anthracite is harder to mine than bituminous coal, but it is believed that production per man-day can be improved by a thorough investigation of mine methods. In order to reduce mining costs, it is also necessary that reductions be made in royalties and freight rates. At the present time the Interstate Commerce Commission is considering the adjustment of rates to States constituting the major markets for the sale of anthracite.

In anthracite mining an average of at least 33 tons of water must be pumped out of the mines for each ton of coal produced. In some cases pumping costs may run up to a maximum of about 55 cents per ton. Pumping costs, while serious, are not the major threat so far as a conservation problem is concerned. Unless some definite action is

taken, a large portion of the anthracite reserves may be permanently lost. For example, in the area around Scranton coal reserves are approaching exhaustion and large-scale operations will probably cease in 15 or 20 years. Pumping in this area will end and the water will flood the abandoned mines. At Wilkes-Barre, which is about 20 miles away, reserves are sufficient for another 50 years, but once control of the water is lost in the Scranton area, pumping costs at Wilkes-Barre will become excessive and the reserves there will be lost.

Accumulation of these large bodies of water against barrier pillars of undetermined strength creates potential danger of a major mining catastrophe. The Anthracite Commission recommends that a survey of the water problem be started immediately, and that it be followed as rapidly as possible with a program under a suitable Governmental agency to carry out the work which the survey shows to be necessary.

On the assumption that a satisfactory solution of the mine-water problem will be found, it is estimated that the life of the eastern middle field is approximately 15 years, of the northern field about 50 years, and of the southern and middle-western fields over 150 years. It is evident that certain localities will soon reach the end of mining operations and thus some of the mining communities must face the day when their means of livelihood has gone.

*New uses for anthracite.*—In the past few years there has been a definite renewal of interest in the use of anthracite as a substitute for coke in water-gas producers, foundry cupolas, and blast furnaces. In water-gas plants employing certain operating methods, properly selected anthracite will give as good results as coke, and it is estimated that with the proper stimulus and development, water-gas manufacture might offer an outlet for approximately one million tons of anthracite annually. Water-gas plants can be used in the production of synthetic ammonia. The location of synthetic-ammonia plants in the anthracite region would utilize directly some of the unemployed labor, consume anthracite for water-gas generation, and eliminate the necessity for building expensive coke-oven plants with their heavy demand for steel and other vital materials.

*Expansion of other industries.*—With respect to immediate industrial expansion, the commission suggests the introduction of war industries into the region and the expansion of some of the smaller industries (such as wood-using, printing, food-product, and chemical) which supply peacetime needs, as well as exploration of the possibilities of anthracite in producing power for local manufacturing industries.

Agricultural employment cannot be expected to absorb a large additional population. However, about half of the 15-county area including and surrounding the anthracite fields is forested, and the Commission is of the opinion that the present employment in the woods, sawmills, and wood-using industries could be more than doubled in the immediate future by aggressive local planning and with some Federal help. Long-range planning and management programs might eventually provide some 5,000,000 man-days of permanent employment annually in diverse forest and wood-using industries, 10 times the present amount of forest employment. In addition, physical improvements needed for fire protection would require some 2,500,000 man-days of labor.

A program of public work projects for the post-war period is needed for the anthracite area even more than in economically more favored communities. The report of the Commission suggests that a permanent regional planning agency be established to develop such a program for the area as well as to guide local communities in their part of such an undertaking. This agency should take part in large projects of regional significance and assist in dealing with the mine-flooding problem, the reforestation program, flood protection, and industrial development.

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## Industrial Disputes

### STRIKES IN 1941<sup>1</sup>

STRIKE activity during the first 11 months of 1941 was at a relatively high level, as is usual in a year of rapidly expanding industrial activity, increasing employment, and rapidly rising living costs. The number of strikes in 1941 (4,288) was exceeded only in 1937 and 1917; the number of workers involved in strikes (2,362,620) was greater than in any year except 1919; and the amount of idleness during strikes (23,047,556 man-days) was exceeded in recent years only in 1937 and 1927. No information on the amount of idleness during strikes is available for years prior to 1927.

One employed worker out of every 12 was involved in a strike at some time during the year. This proportion (8.4 percent) was exactly the same in 1941 as in 1916, the year preceding the entry of the United States into the first World War. Both the numbers of workers employed and the numbers involved in strikes were, naturally, much larger in 1941 than in 1916.

Those workers who were involved in 1941 strikes were idle for an average of about 10 days. As a result, there were 23,000,000 man-days of idleness during strikes in 1941. This total is equal to substantially less than 1 day per employed worker. Ignoring substitution of skills and thinking purely in terms of working time, it could be said that by working on one holiday that is ordinarily observed, the working force of the Nation could more than make up for the idleness resulting from strikes in the entire year.

Idleness during strikes in 1941 amounted to about one-third of 1 percent of the available working time during the year. The importance of strikes in any period, however, goes far beyond the direct loss of time by the men involved, because strikes in strategic industries, if not settled quickly, may have far-reaching effects on our whole production system by shutting off the flow of important materials, or power, or semifinished products. It is impossible, for lack of detailed information, to measure these secondary losses and interruptions.

#### *Strikes From Outbreak of War to End of Year*

With the outbreak of war on December 7 several strikes then in progress were immediately called off and several threatened strikes, even where strike votes had been taken, were canceled. Labor organizations in numerous localities passed resolutions pledging full support to the Government and in many cases promised that there should be no strikes interfering with the production of war materials.

<sup>1</sup> Prepared by Don Q. Crowther of the Bureau's Industrial Relations Division.

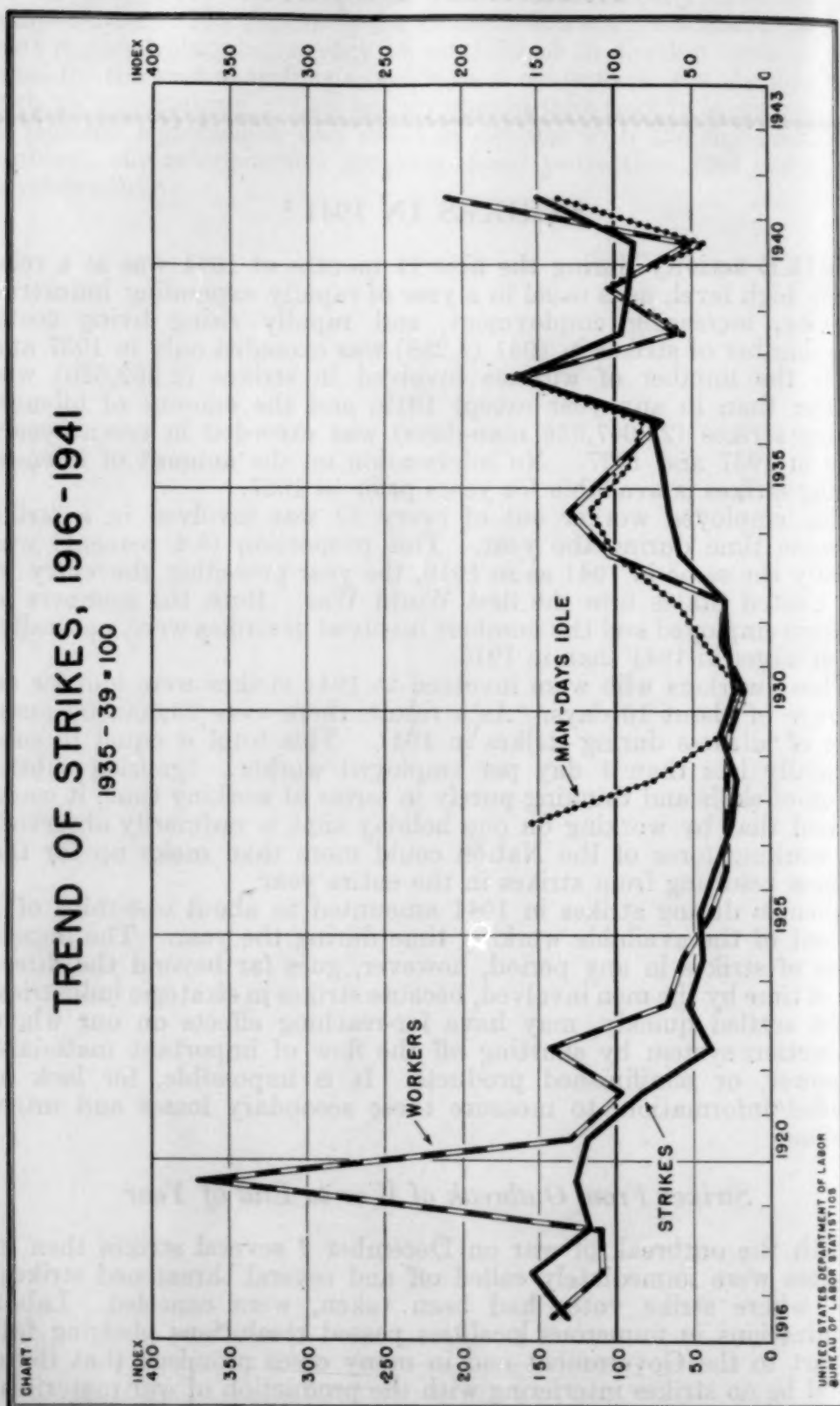


TABLE 1.—*Strikes in the United States, 1881 to 1941*

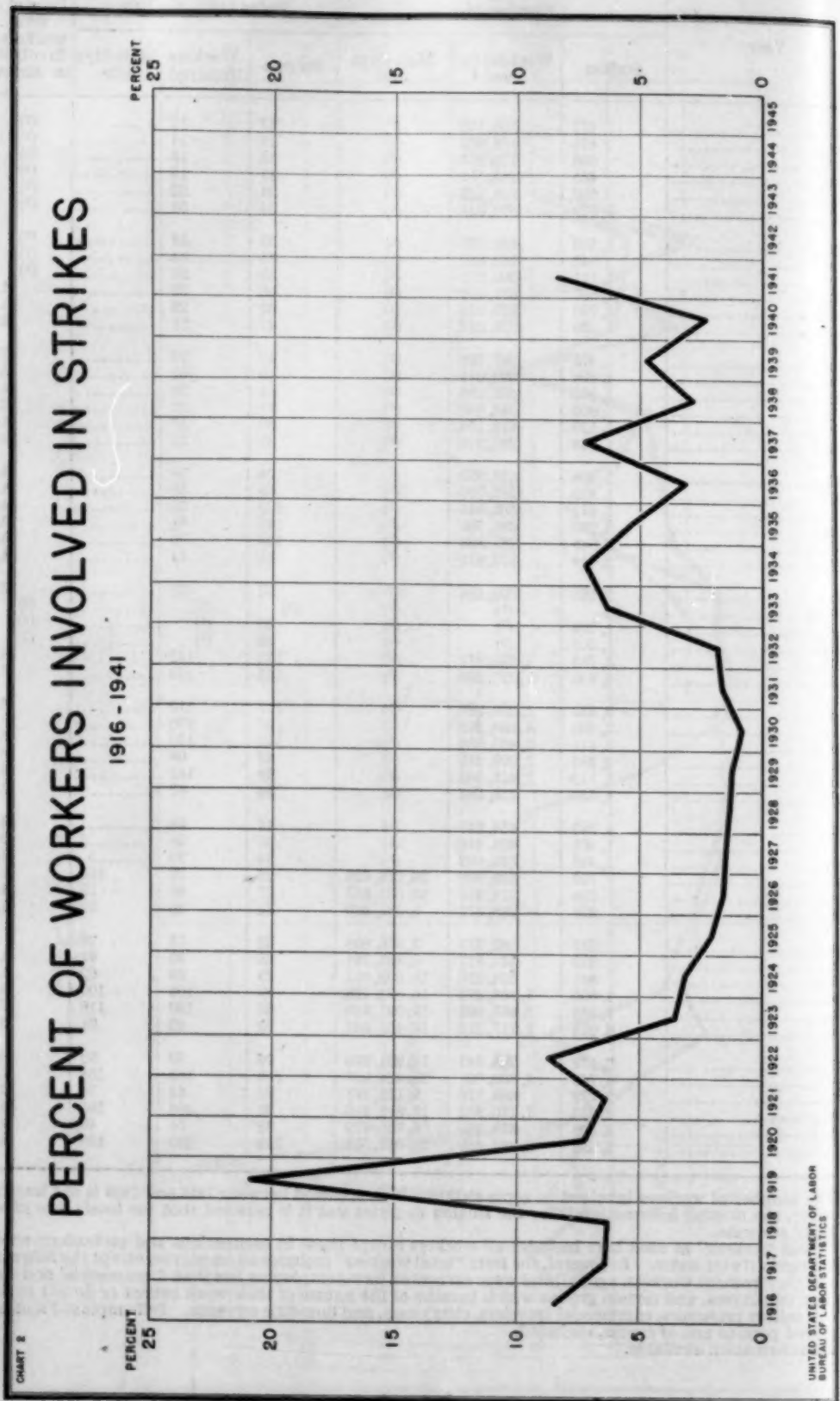
Year	Number of—			Index (1935-39=100)			Percent of total workers <sup>1</sup> involved in strikes
	Strikes	Workers involved <sup>1</sup>	Man-days idle	Strikes	Workers involved	Man-days idle	
1881.....	477	130, 176	( <sup>2</sup> )	17	12	-----	( <sup>2</sup> )
1882.....	476	158, 802	( <sup>2</sup> )	17	14	-----	( <sup>2</sup> )
1883.....	506	170, 275	( <sup>2</sup> )	18	15	-----	( <sup>2</sup> )
1884.....	485	165, 175	( <sup>2</sup> )	17	15	-----	( <sup>2</sup> )
1885.....	695	258, 129	( <sup>2</sup> )	24	23	-----	( <sup>2</sup> )
1886.....	1, 572	610, 024	( <sup>2</sup> )	55	54	-----	( <sup>2</sup> )
1887.....	1, 503	439, 306	( <sup>2</sup> )	53	39	-----	( <sup>2</sup> )
1888.....	946	162, 880	( <sup>2</sup> )	33	14	-----	( <sup>2</sup> )
1889.....	1, 111	260, 290	( <sup>2</sup> )	39	23	-----	( <sup>2</sup> )
1890.....	1, 897	373, 499	( <sup>2</sup> )	66	33	-----	4.2
1891.....	1, 786	329, 953	( <sup>2</sup> )	62	29	-----	3.6
1892.....	1, 359	238, 685	( <sup>2</sup> )	47	21	-----	2.5
1893.....	1, 375	287, 756	( <sup>2</sup> )	48	26	-----	3.2
1894.....	1, 404	690, 044	( <sup>2</sup> )	49	61	-----	8.3
1895.....	1, 255	407, 188	( <sup>2</sup> )	44	36	-----	4.4
1896.....	1, 066	248, 838	( <sup>2</sup> )	37	22	-----	2.8
1897.....	1, 110	416, 154	( <sup>2</sup> )	39	37	-----	4.3
1898.....	1, 098	263, 219	( <sup>2</sup> )	38	23	-----	2.6
1899.....	1, 838	431, 889	( <sup>2</sup> )	64	38	-----	3.9
1900.....	1, 839	567, 719	( <sup>2</sup> )	64	50	-----	4.9
1901.....	3, 012	503, 843	( <sup>2</sup> )	105	50	-----	4.6
1902.....	3, 240	691, 507	( <sup>2</sup> )	113	61	-----	5.4
1903.....	3, 648	787, 834	( <sup>2</sup> )	127	70	-----	5.9
1904.....	2, 419	573, 815	( <sup>2</sup> )	85	51	-----	4.3
1905.....	2, 186	302, 434	( <sup>2</sup> )	76	27	-----	2.1
1906-13.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	-----	( <sup>2</sup> )
1914.....	1, 204	( <sup>2</sup> )	( <sup>2</sup> )	42	( <sup>2</sup> )	-----	( <sup>2</sup> )
1915.....	1, 593	( <sup>2</sup> )	( <sup>2</sup> )	56	( <sup>2</sup> )	-----	( <sup>2</sup> )
1916.....	3, 789	1, 599, 917	( <sup>2</sup> )	132	142	-----	8.4
1917.....	4, 450	1, 227, 254	( <sup>2</sup> )	155	109	-----	6.3
1918.....	3, 353	1, 239, 989	( <sup>2</sup> )	117	110	-----	6.2
1919.....	3, 630	4, 160, 348	( <sup>2</sup> )	127	370	-----	20.8
1920.....	3, 411	1, 463, 054	( <sup>2</sup> )	119	130	-----	7.2
1921.....	2, 385	1, 099, 247	( <sup>2</sup> )	83	98	-----	6.4
1922.....	1, 112	1, 612, 562	( <sup>2</sup> )	39	143	-----	8.7
1923.....	1, 553	756, 384	( <sup>2</sup> )	54	67	-----	3.5
1924.....	1, 249	654, 641	( <sup>2</sup> )	44	58	-----	3.1
1925.....	1, 301	428, 416	( <sup>2</sup> )	45	38	-----	2.0
1926.....	1, 035	329, 592	( <sup>2</sup> )	36	29	-----	1.5
1927.....	707	329, 939	26, 218, 628	25	29	155	1.4
1928.....	604	314, 210	12, 631, 863	21	28	75	1.3
1929.....	921	288, 572	5, 351, 540	32	26	32	1.2
1930.....	637	182, 975	3, 316, 808	22	16	20	.8
1931.....	810	341, 817	6, 893, 244	28	30	41	1.6
1932.....	841	324, 210	10, 502, 033	29	29	62	1.8
1933.....	1, 695	1, 168, 272	16, 872, 128	59	104	100	6.3
1934.....	1, 856	1, 466, 695	19, 591, 949	65	130	116	7.2
1935.....	2, 014	1, 117, 213	15, 456, 337	70	99	91	5.2
1936.....	2, 172	788, 648	13, 901, 956	76	70	82	3.1
1937.....	4, 740	1, 860, 621	28, 424, 857	166	165	168	7.2
1938.....	2, 772	688, 376	9, 148, 273	97	61	54	2.8
1939.....	2, 613	1, 170, 962	17, 812, 219	91	104	105	4.7
1940.....	2, 508	576, 988	6, 700, 872	88	51	40	2.3
1941.....	4, 288	2, 362, 620	23, 047, 556	150	210	136	8.4

<sup>1</sup> The number of workers involved in some strikes which occurred between 1916 and 1926 is not known. However, the missing information is for the smaller disputes and it is believed that the totals here given are fairly accurate.

<sup>2</sup> "Total workers" as used here includes all workers except those in occupations and professions where strikes rarely if ever occur. In general, the term "total workers" includes all employees except the following groups: Government workers, agricultural wage earners on farms employing less than 6, managerial and supervisory employees, and certain groups which because of the nature of their work cannot or do not strike, such as college professors, commercial travelers, clergymen, and domestic servants. Self-employed and unemployed persons are, of course, excluded.

<sup>3</sup> No information available.





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In the month of December there were 143 new strikes involving 29,555 workers. Idleness during all strikes in the month amounted to 476,471 man-days. During the first 7 days of the month, before the outbreak of war, 59 (41 percent) of the 143 strikes occurred, involving 13,463 (46 percent) of the total workers, and the strike idleness during this period amounted to 173,159 man-days (36 percent of the total). In the remaining 24 days of December there were 84 new strikes, involving 16,092 workers, and the idleness during strikes amounted to 303,312 man-days.

### Strikes by Months

Only in a very general way can strikes be said to have any usual seasonal trend. However, in recent years strikes have tended to increase from the beginning of the year to a peak, usually in April or May, then to decline through the midsummer months, increasing again to another peak about September, after which they quite consistently taper off to an all-year low in December.

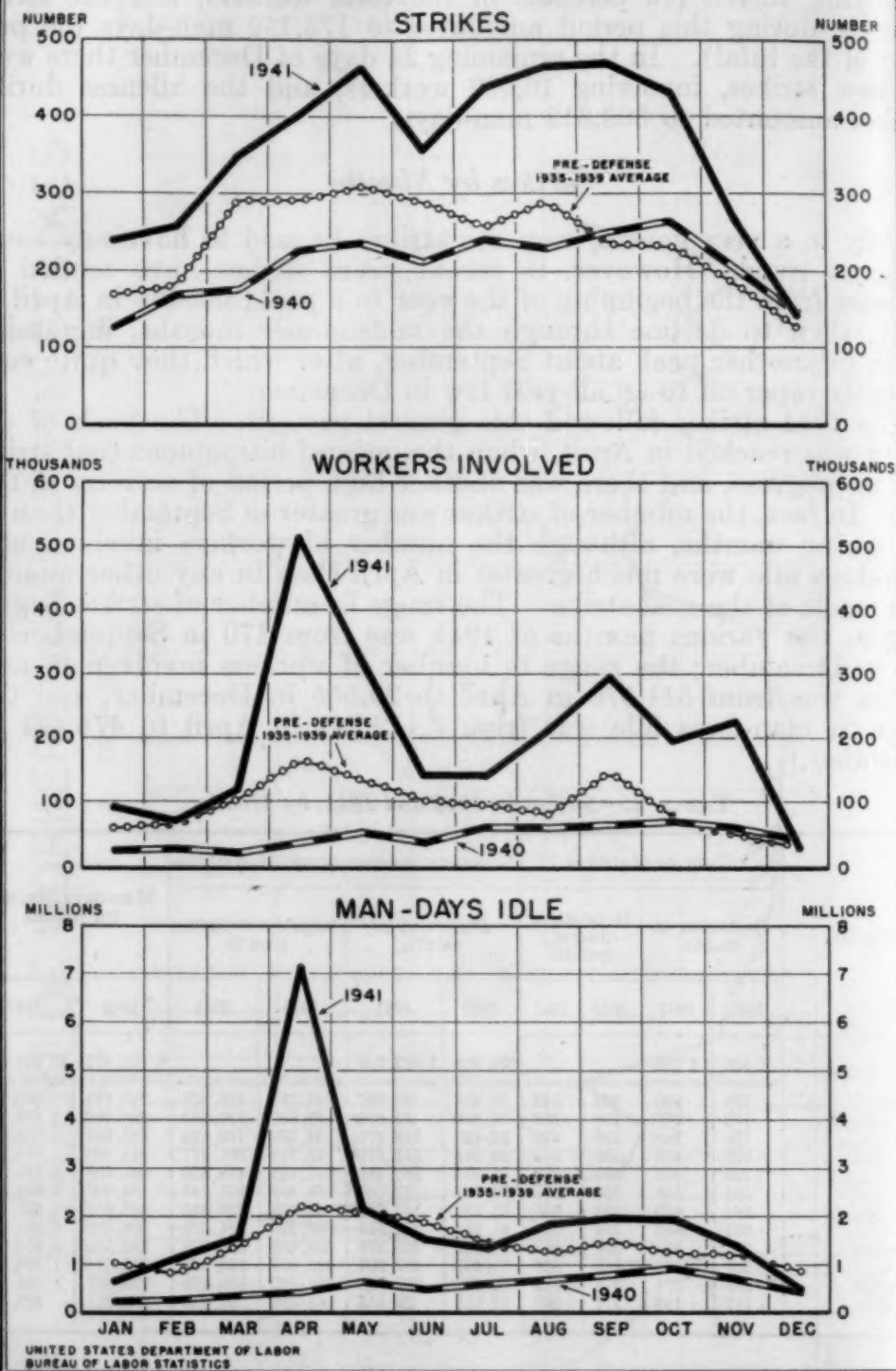
The 1941 strikes followed this general pattern. The peak of activity was reached in April, when the general bituminous-coal strike was in progress, and there was another high period of activity in the fall. In fact, the number of strikes was greater in September than in the spring months, although the number of workers involved and man-days idle were much greater in April than in any other month, as a result of the coal strike. The range in number of strikes beginning in the various months of 1941 was from 470 in September to 143 in December; the range in number of workers involved in new strikes was from 511,570 in April to 29,555 in December; and the range in man-days idle was from 7,112,742 in April to 476,471 in December.

TABLE 2.—Strikes in 1940 and 1941, by Months

Month	Number of strikes				Number of workers involved in strikes				Man-days idle during month	
	Beginning in month		In progress during month		Beginning in month		In progress during month			
	1940	1941	1940	1941	1940	1941	1940	1941	1940	1941
Year.....	2,508	4,288			576,988	2,362,620			6,700,872	23,047,556
January.....	128	240	222	349	26,937	91,897	41,284	109,868	246,674	663,185
February.....	172	257	270	388	29,509	71,875	38,050	127,932	289,992	1,134,531
March.....	178	348	295	499	22,433	118,271	43,231	179,118	396,981	1,558,457
April.....	228	403	336	592	39,481	511,570	53,119	567,477	441,866	7,112,742
May.....	239	463	361	669	53,231	321,485	77,124	419,829	665,688	2,172,303
June.....	214	357	336	571	38,542	142,689	56,403	227,145	484,007	1,504,056
July.....	244	439	390	635	63,126	142,969	82,970	226,455	585,651	1,325,758
August.....	231	465	394	698	61,356	211,515	90,226	304,526	706,308	1,825,488
September.....	253	470	394	687	65,362	295,270	108,389	358,399	780,570	1,952,652
October.....	267	432	419	664	71,997	197,803	107,863	348,109	915,014	1,925,328
November.....	207	271	373	464	62,399	227,721	101,532	339,479	739,807	1,396,585
December.....	147	143	277	287	42,615	29,555	61,576	59,022	468,314	476,471

CHART 3

# STRIKES EACH MONTH IN 1940 AND 1941 COMPARED WITH PRE-DEFENSE 5-YEAR AVERAGES





*Industries Affected*

The greatest concentration of strikes in 1941, as measured in terms of number of workers involved and the resulting idleness, was in coal mining where there were several major strikes during the year. In the bituminous-coal industry there was the general wage strike in April, involving about 318,000 workers, and in September the strike of 53,000 workers in captive mines over the union-shop issue, which finally brought about a sympathy strike in November of 115,000 workers in commercial mines. In addition, there were two State-wide strikes of Alabama coal miners in September and October, and a short strike of Illinois miners in April. In the anthracite mining industry there was a 1-day wage strike of more than 90,000 workers in May, and in September a strike of about 25,000 workers protesting an increase in union dues. The total workers involved in individual strikes in the mining industries exceeded the estimated average employment in those industries, because most of the miners were on strike at some time, and some of them were on strike more than once, during the year. The idleness during strikes in the mining industries in 1941 amounted to 4.52 percent of the available working time, whereas in no other industry group did it amount to as much as 1 percent.

Nearly one-third (31 percent) of the total workers involved in strikes and a similar proportion of the total idleness during 1941 were in the mining industries. Nearly 17 percent of all workers involved in strikes and 10 percent of the idleness were in the transportation-equipment manufacturing industries. The iron and steel industries had about 10 percent of the total workers involved but only 6 percent of the total idleness. About 8 percent of the total workers involved were in the building and construction industry, but their strikes were shorter than the average and accounted for only 4 percent of the total idleness.

With the exception of the mining industries, the greatest proportion of the employed workers involved in strikes in any industry group was 39 percent in transportation-equipment manufacturing. About 27 percent of the rubber-industry workers were involved in strikes at some time during the year, 20 percent of the workers in iron and steel, 12 percent in the nonferrous metals and the stone, clay, and glass products industries, and 11 percent in building and construction.

Strike figures for the various industry groups are given in table 3. A table showing information for individual industries in much greater detail will be published with this report in pamphlet form and may be obtained upon request.

TABLE 3.—*Strikes in 1941, by Industry Groups*

Industry group	Number of strikes beginning in 1941	Workers involved		Man-days idle during 1941	
		Number	Per cent of employed workers <sup>1</sup>	Number	Per cent of available working time <sup>2</sup>
All industries.....	4,288	2,362,620	8.4	23,047,556	0.32
Manufacturing.....	2,646	1,272,823	12.6	12,465,065	.49
Iron and steel and their products, not including machinery.....	332	243,749	20.4	1,442,253	.47
Machinery, not including transportation equipment.....	286	128,407	8.7	2,213,911	.49
Transportation equipment.....	185	394,056	39.0	2,294,136	.89
Nonferrous metals and their products.....	129	43,740	12.4	413,301	.46
Lumber and allied products.....	286	67,740	9.7	1,323,550	.75
Stone, clay, and glass products.....	136	39,694	11.8	655,646	.76
Textiles and their products.....	507	144,769	7.9	1,683,568	.36
Leather and its manufactures.....	92	27,883	8.8	219,876	.27
Food and kindred products.....	261	69,782	7.6	988,457	.42
Tobacco manufactures.....	10	8,517	9.5	106,246	.46
Paper and printing.....	137	19,494	3.0	324,567	.20
Chemicals and allied products.....	88	21,411	4.6	315,581	.27
Rubber products.....	42	39,237	27.1	155,099	.42
Miscellaneous manufacturing.....	161	24,344	( <sup>3</sup> )	328,874	( <sup>4</sup> )
Nonmanufacturing:					
Extraction of minerals.....	143	737,302	105.6	7,226,061	4.32
Transportation and communication.....	268	50,406	( <sup>5</sup> )	425,099	( <sup>5</sup> )
Trade.....	421	50,779	( <sup>5</sup> )	1,034,312	( <sup>5</sup> )
Domestic and personal service.....	227	29,022	( <sup>5</sup> )	303,790	( <sup>5</sup> )
Professional service.....	29	2,128	( <sup>5</sup> )	47,632	( <sup>5</sup> )
Building and construction.....	395	186,473	11.2	923,216	.22
Agriculture and fishing.....	32	14,406	( <sup>5</sup> )	494,037	( <sup>5</sup> )
WPA and relief projects.....	5	188	( <sup>5</sup> )	3,859	( <sup>5</sup> )
Other nonmanufacturing industries.....	124	19,093	( <sup>5</sup> )	124,485	( <sup>5</sup> )

<sup>1</sup> "Employed workers" as used here includes all workers except those in occupations and professions where strikes rarely, if ever, occur. In general, the term "total workers" includes all employees except the following groups: Government workers, agricultural wage earners on farms employing less than 6, managerial and supervisory employees, and certain groups which because of the nature of their work cannot or do not strike, such as college professors, commercial travelers, clergymen, and domestic servants. Self-employed and unemployed persons are, of course, excluded.

<sup>2</sup> "Available working time" was estimated for purposes of this table by multiplying the total employed workers in each industry or group by the number of days worked by most employees in the respective industry or group.

<sup>3</sup> This figure is less than the sum of the figures below. This is due to the fact that the general strike of machinists in the St. Louis area, November 24-26, has been counted as a separate strike in each industry affected with the proper allocation of number of workers involved and man-days idle.

<sup>4</sup> Not available.

<sup>5</sup> Several thousand coal miners were involved in more than one strike during the year. Consequently, the sum of the workers involved in individual strikes was greater than the number employed in the industry.

### States Affected

There were strikes in all States of the Union and in the District of Columbia during 1941. The range in number of strikes by States was from 3 in Wyoming to 763 in New York. New York State had more strikes than any other, but Pennsylvania and Michigan each had more workers involved in strikes than New York. Pennsylvania was the only State having more strike idleness than New York.

There were more than 100 strikes in each of 10 States during the year. In addition to New York they were Pennsylvania (545), California (384), Ohio (341), New Jersey (264), Michigan (252), Illinois (226), Massachusetts (175), Indiana (161), and Missouri (119).

Nearly 21 percent of the total workers involved and 18 percent of the total idleness during strikes in 1941 were in Pennsylvania; Michigan had 14 percent of the total workers involved and 8 percent of the





idleness; New York had nearly 9 percent of the workers involved and the same percent of the total idleness; Ohio and West Virginia each had about 7 percent of the total workers involved, but Ohio had 6 percent of the total idleness while West Virginia had 8 percent.

TABLE 4.—*Strikes in 1941, by States*

State	Number of strikes beginning in 1941	Workers involved		Man-days idle during 1941	
		Number	Percent of total	Number	Percent of total
All States.....	1 4,288	2,362,620	100.0	23,047,556	100.0
Alabama.....	80	112,486	4.8	861,891	3.7
Arizona.....	14	2,940	.1	17,498	.1
Arkansas.....	30	7,063	.3	64,272	.3
California.....	384	114,134	4.8	1,793,907	7.8
Colorado.....	10	5,727	.2	57,555	.2
Connecticut.....	84	33,616	1.4	272,903	1.2
Delaware.....	14	4,639	.2	46,129	.2
District of Columbia.....	21	2,560	.1	21,129	.1
Florida.....	33	7,354	.3	43,014	.2
Georgia.....	32	6,977	.3	98,520	.4
Idaho.....	8	342	( <sup>2</sup> )	10,502	( <sup>2</sup> )
Illinois.....	226	110,946	4.7	1,590,783	6.9
Indiana.....	161	80,311	3.4	657,154	2.9
Iowa.....	49	10,225	.4	220,047	1.0
Kansas.....	19	3,174	.1	19,374	.1
Kentucky.....	53	72,486	3.1	773,287	3.4
Louisiana.....	47	6,962	.3	55,610	.2
Maine.....	23	6,258	.3	44,100	.2
Maryland.....	66	37,186	1.6	207,151	.9
Massachusetts.....	175	57,415	2.4	529,830	2.3
Michigan.....	252	333,571	14.2	1,897,649	8.2
Minnesota.....	47	7,459	.3	98,880	.4
Mississippi.....	11	6,073	.3	22,144	.1
Missouri.....	119	51,420	2.2	314,232	1.4
Montana.....	7	217	( <sup>2</sup> )	6,589	( <sup>2</sup> )
Nebraska.....	5	289	( <sup>2</sup> )	3,929	( <sup>2</sup> )
Nevada.....	6	1,007	( <sup>2</sup> )	4,077	( <sup>2</sup> )
New Hampshire.....	13	3,233	.1	16,328	.1
New Jersey.....	264	91,292	3.9	1,058,308	4.6
New Mexico.....	11	3,166	.1	26,540	.1
New York.....	763	204,284	8.6	2,171,937	9.4
North Carolina.....	34	18,731	.8	105,085	.5
North Dakota.....	7	363	( <sup>2</sup> )	3,138	( <sup>2</sup> )
Ohio.....	341	164,294	7.0	1,312,970	5.7
Oklahoma.....	16	826	( <sup>2</sup> )	20,986	.1
Oregon.....	51	6,990	.3	201,002	.9
Pennsylvania.....	545	488,498	20.9	4,136,738	17.7
Rhode Island.....	39	8,888	.4	87,854	.4
South Carolina.....	17	5,135	.2	14,486	.1
South Dakota.....	5	325	( <sup>2</sup> )	6,132	( <sup>2</sup> )
Tennessee.....	85	34,661	1.5	564,871	2.5
Texas.....	55	11,840	.5	129,365	.6
Utah.....	13	2,805	.1	44,284	.2
Vermont.....	6	804	( <sup>2</sup> )	14,964	.1
Virginia.....	39	17,151	.7	223,201	1.0
Washington.....	60	35,694	1.5	706,877	3.1
West Virginia.....	57	162,957	6.9	1,944,419	8.4
Wisconsin.....	65	17,450	.7	521,315	2.3
Wyoming.....	3	396	( <sup>2</sup> )	4,600	( <sup>2</sup> )

<sup>1</sup> The sum of this column is more than 4,288. This is due to the fact that 94 strikes which extended across State lines have been counted, in this table, as separate strikes in each State affected, with the proper allocation of number of workers involved and man-days idle.

<sup>2</sup> Less than a tenth of 1 percent.

The proportions of employed workers in each State involved in strikes during the year ranged from 0.2 percent in Montana and Nebraska to 46 percent of the working force in West Virginia. (See chart 4.) It should be explained that in this computation each worker involved in two or more strikes during the year is counted as a separate worker involved in each strike. The figure for West Virginia is misleading if this is not clearly understood, because the

majority of the workers involved in West Virginia strikes were coal miners who were out at two different times. The same difficulty may be present, to some extent, in computing the percentage of employed workers involved in strikes for other States. In spite of this qualification, such percentages have a very definite significance in measuring the importance of strike activity, whether the total workers involved are different workers on strike just once during the year, or whether they are groups of workers on strike two or more times during the year.

In 7 States less than 1 percent of the employed workers were involved in strikes during the year. In 8 States the proportion of employed workers involved was 1 but less than 2 percent, in 7 States 2 but less than 3 percent, in 8 States 3 but less than 4 percent, in 12 States it was 4 but less than 9 percent, in 2 States it was 9 and 10 percent, respectively, and in 5 States it was more than 10 percent. In the latter group, in addition to West Virginia, mentioned above, there were Pennsylvania and Kentucky with about 19 percent and Michigan and Alabama with about 25 percent.

### Cities Affected

New York City had more strikes, more workers involved, and more idleness during strikes in 1941 than any other city in the Nation. In fact, the number of strikes in New York City (579) was greater than the combined number of strikes in the 5 next highest cities. Philadelphia with 141 was next to New York in number of strikes and was followed in order by Detroit (120), Los Angeles (107), and Cleveland (100). Next to New York, with 150,273 workers involved, came Dearborn, Mich., with 113,227, Detroit with 101,454, and Flint, Mich., and Chicago with a little more than 36,000 each. Cities with the most man-days idle during strikes were New York (1,651,008), Dearborn, Mich. (713,402), Chicago (609,697), Detroit (566,412), and Philadelphia (417,726).

In 1941 there were 71 cities in which 10 or more strikes occurred. These cities, together with 26 others which had 10 or more strikes in some year from 1927 to 1940, are shown in table 5. Strikes extending into 2 or more cities have been counted as separate strikes in each city affected, with the allocation of workers involved and man-days idle among the affected cities as necessary. The figures for a given city, therefore, may include parts of larger intercity strikes.

TABLE 5.—*Strikes in 1941 in Cities which had 10 or More Strikes in Any Year From 1927 to 1941*

City	Number of strikes beginning in 1941	Number of workers involved	Man-days idle during 1941	City	Number of strikes beginning in 1941	Number of workers involved	Man-days idle during 1941
Akron, Ohio.....	11	18,325	28,018	Milwaukee, Wis.....	28	3,012	38,622
Allentown, Pa.....	8	7,393	72,381	Minneapolis, Minn.....	27	6,664	74,250
Atlanta, Ga.....	19	4,321	48,170	Mobile, Ala.....	11	5,451	31,274
Baltimore, Md.....	40	22,229	105,947	Nashville, Tenn.....	11	2,255	32,981
Baton Rouge, La.....	11	805	8,177	Newark, N. J.....	55	6,773	54,696
Bethlehem, Pa.....	10	14,373	41,544	New Bedford, Mass.....	15	4,716	52,784
Birmingham, Ala.....	21	8,768	61,085	New Haven, Conn.....	13	2,917	39,771
Boston, Mass.....	32	12,092	146,231	New Orleans, La.....	20	3,151	28,417
Bridgeport, Conn.....	13	2,487	14,464	New York (Greater).....	579	150,273	1,651,008
Buffalo, N. Y.....	27	9,869	56,718	Norfolk, Va.....	11	849	3,424
Camden, N. J.....	14	2,940	43,695	Oakland, Calif. (East Bay area).....	31	13,083	308,913
Canton, Ohio.....	12	2,116	12,016	Paducah, Ky.....	6	893	8,636
Chattanooga, Tenn.....	15	3,492	81,973	Passaic, N. J.....	3	849	10,640
Chicago, Ill.....	90	36,328	609,697	Pateron, N. J.....	10	2,792	17,008
Cincinnati, Ohio.....	25	3,543	50,655	Pawtucket, R. I.....	7	528	5,510
Cleveland, Ohio.....	100	36,231	263,468	Peoria, Ill.....	8	2,520	19,176
Columbus, Ohio.....	16	4,124	36,743	Philadelphia, Pa.....	141	29,844	417,726
Dallas, Texas.....	11	1,322	11,129	Pittsburgh, Pa.....	70	18,177	226,698
Dayton, Ohio.....	13	3,074	24,021	Portland, Oreg.....	19	2,631	145,715
Dearborn, Mich.....	11	113,227	713,402	Providence, R. I.....	11	502	5,911
Denver, Colo.....	5	238	1,184	Reading, Pa.....	5	800	11,795
Des Moines, Iowa.....	12	892	8,953	Richmond, Va.....	10	1,401	15,223
Detroit, Mich.....	120	101,454	566,412	Rochester, N. Y.....	12	2,046	17,002
Duluth, Minn.....	7	375	2,476	Rockford, Ill.....	10	2,186	26,030
Easton, Pa.....	2	913	13,369	Saginaw, Mich.....	8	5,340	12,507
East St. Louis, Ill.....	7	1,875	4,643	St. Louis, Mo.....	62	32,758	183,616
Elizabeth, N. J.....	15	7,491	58,427	St. Paul, Minn.....	8	414	11,572
Erie, Pa.....	10	2,334	29,702	San Diego, Calif.....	20	6,457	24,158
Evansville, Ind.....	5	355	4,556	San Francisco, Calif.....	44	17,529	305,247
Fall River, Mass.....	12	3,910	13,565	Scranton, Pa.....	13	703	8,285
Flint, Mich.....	9	36,344	74,003	Seattle, Wash.....	16	4,209	35,686
Fort Smith, Ark.....	10	1,705	28,122	Shamokin, Pa.....	4	707	3,480
Fort Wayne, Ind.....	13	1,937	29,949	South Bend, Ind.....	12	1,539	25,719
Gary, Ind.....	12	29,085	40,181	Springfield, Ill.....	5	590	11,653
Hartford, Conn.....	13	9,259	93,657	Springfield, Mass.....	8	353	2,907
Haverhill, Mass.....	2	36	86	Tacoma, Wash.....	16	6,458	54,750
Houston, Texas.....	16	1,322	28,501	Terre Haute, Ind.....	2	288	8,261
Huntington, W. Va.....	10	1,503	14,258	Toledo, Ohio.....	27	3,455	26,968
Indianapolis, Ind.....	20	2,787	39,136	Trenton, N. J.....	23	5,863	69,401
Jersey City, N. J.....	27	5,277	82,509	Washington, D. C.....	21	2,560	21,129
Kansas City, Mo.....	24	3,333	30,853	Waterbury, Conn.....	1	158	316
Knoxville, Tenn.....	14	8,988	160,590	Wausau, Wis.....	2	503	13,006
Lancaster, Pa.....	3	780	6,663	Wilkes-Barre, Pa.....	13	2,257	8,822
Long Beach, Calif.....	11	907	9,988	Wilmington, Del.....	11	3,755	43,135
Los Angeles, Calif.....	107	19,203	162,125	Woonsocket, R. I.....	7	1,850	23,538
Louisville, Ky.....	18	3,782	32,743	Worcester, Mass.....	8	1,152	20,620
Lowell, Mass.....	9	4,468	61,532	York, Pa.....	9	2,543	26,045
Lynn, Mass.....	10	890	4,116	Youngstown, Ohio.....	14	3,317	12,020
Memphis, Tenn.....	23	2,186	22,406				

*Workers Involved*

In the 4,288 strikes beginning in 1941 the average number of workers involved was 551. This average was raised because of a few extremely large strikes. In fact, in more than 85 percent of the strikes the number of workers involved was less than the average for all strikes. About one-sixth of the strikes involved fewer than 20 workers each and more than half (53 percent) of the strikes involved fewer than 100 workers each. About 40 percent of the strikes involved from 100 up to 1,000 workers each and in 7 percent of the strikes 1,000 or more workers were involved.

Table 6 shows a classification of the strikes in each industry group, according to the number of workers involved. The interindustry strike appearing at the end of the table was the general strike of 9,000 machinists in the St. Louis area which occurred in November.



TABLE 6.—*Strikes Beginning in 1941, by Number of Workers Involved and Industry Group*

Industry group	Total	Average number of workers per strike	Number of strikes in which the number of workers involved was—							
			6 and under 20	20 and under 100	100 and under 250	250 and under 500	500 and under 1,000	1,000 and under 5,000	5,000 and under 10,000	10,000 and over
All industries:										
Number.....	4,288	551	716	1,552	870	480	337	270	25	20
Percent.....	100.0		16.7	36.1	20.3	11.4	7.9	6.3	0.6	0.7
<b>Manufacturing</b>										
Iron, steel, and their products, excluding machinery.....	331	730	14	72	82	67	49	37	5	5
Machinery, excluding transportation equipment.....	285	443	19	102	50	51	37	24	1	1
Transportation equipment.....	184	2,128	6	26	30	26	35	45	9	7
Nonferrous metals and their products.....	128	341	21	42	27	21	6	10	1	
Lumber and allied products.....	285	236	30	111	84	34	19	6		1
Stone, clay, and glass products.....	136	292	12	54	34	18	8	10		
Textiles and their products.....	507	286	81	189	97	62	44	33	1	
Leather and its manufactures.....	92	303	8	35	15	18	13	2	1	
Food and kindred products.....	260	267	48	103	48	26	20	14	1	
Tobacco manufactures.....	10	852			2	2	2	4		
Paper and printing.....	137	142	34	50	34	11	6	2		
Chemicals and allied products.....	87	245	8	41	20	10	4	4		
Rubber products.....	42	934	3	8	6	9	11	3	1	1
Miscellaneous manufacturing.....	161	151	32	65	39	13	9	3		
<b>Nonmanufacturing</b>										
Extraction of minerals.....	143	5,156	6	31	22	28	24	22	1	9
Transportation and communication.....	268	188	49	115	66	15	14	8	1	
Trade.....	420	117	143	180	52	27	8	10		
Domestic and personal service.....	227	128	75	92	40	8	6	6		
Professional service.....	29	73	9	15	3	2				
Building and construction.....	395	472	83	149	87	36	17	16	2	5
Agriculture and fishing.....	32	450	1	15	7	1	4	4		
WPA and relief projects.....	5	38	2	2	1					
Other nonmanufacturing industries.....	123	155	32	55	24	4	1	7		
Interindustry.....	1	9,000							1	

As indicated in table 6 there were 29 strikes during 1941 in each of which 10,000 workers or more were involved. These strikes are listed individually in table 7.

TABLE 7.—*Strikes in 1941 Which Involved 10,000 or More Workers Each*

Strike and location	Month strike began	Approximate number of workers involved
International Harvester Co., Illinois and Indiana	January	15,700
Bethlehem Steel Corporation, Lackawanna, N. Y. <sup>1</sup>	February	12,000
Bethlehem Steel Corporation, Johnstown, Pa. <sup>1</sup>	March	10,000
Bethlehem Steel Corporation, Bethlehem, Pa. <sup>1</sup>	do	10,000
Bituminous-coal mines, Illinois	April	15,000
Bituminous-coal mines, Alabama, Illinois, Iowa <sup>2</sup>	do	48,900
Bituminous-coal mines (general) <sup>2</sup>	do	289,000
Ford Motor Co., Dearborn, Mich.	do	85,000
Ravenna Ordnance Plant, Ravenna, Ohio <sup>1</sup>	May	10,000
Western Washington logging camps and sawmills	do	12,000
Building-trades workers, Detroit, Mich., and vicinity	do	15,000
General Motors Corporation, Flint, Saginaw, Detroit, Mich. <sup>1</sup>	do	40,300
Anthracite mines, Pennsylvania <sup>1</sup>	do	91,000
North American Aviation, Inc., Inglewood, Calif. <sup>1</sup>	June	11,000
Building-trades workers and teamsters, New York City <sup>1</sup>	do	30,000
Building-trades workers, New York City	July	28,000
Federal Shipbuilding & Drydock Co., Kearny, N. J.	August	15,500
Construction workers on Missouri ordnance plants	do	15,600
Tennessee Coal, Iron & R. R. Co., Alabama <sup>1</sup>	September	14,800
Chrysler Motor Corporation (Dodge plant), Detroit, Mich. <sup>1</sup>	do	19,000
Alabama coal mines <sup>1</sup>	do	22,000
Anthracite mines, eastern Pennsylvania	do	25,900
Captive coal mines, 6 States	do	53,000
Welders, west coast shipyards, etc.	October	12,300
B. F. Goodrich Co. (5 plants), Akron, Ohio <sup>1</sup>	do	16,200
Carnegie-Illinois Steel Corporation, Gary, Ind. <sup>1</sup>	do	17,500
Alabama coal mines <sup>1</sup>	do	20,000
Ford Motor Co., Dearborn, Mich. <sup>1</sup>	November	20,000
Bituminous commercial coal mines (sympathy with captive mines), 6 States <sup>1</sup>	do	115,000

<sup>1</sup> Lasted less than 1 week.<sup>2</sup> These 2 cases were part of the same general coal strike situation involving a total of about 318,000 workers. Statistically the strike in Alabama, Illinois, and Iowa was treated separately, since in these States the workers continued idle into May, whereas in the other States practically none were idle after April 30.

### Sex of Workers

About 59 percent of the strikes in the year 1941 involved men alone; in 39 percent, both men and women were involved. Only 80 strikes were confined entirely to women—slightly less than 2 percent of the total. Ninety-one percent of the total workers involved in strikes were men, and 9 percent were women. Most of the large strikes occurred in mining, construction, steel, and transportation equipment manufacturing, where men compose all or most of the working force.

### Establishments Involved

About three-fourths of the strikes occurring in 1941 were confined to single establishments; for example, one plant, one mine, or one construction project. The number of workers in these strikes ranged from 6 (the smallest number counted in the Bureau's statistics) in a large number of strikes to 85,000 in the giant River Rouge plant of the Ford Motor Co. In these single-establishment strikes were 41.5 percent of the total workers involved in strikes during the year and they accounted for 39.4 percent of the total idleness during strikes.

Table 8 shows further classifications by number of establishments involved. Although only 6 percent of the strikes extended to 11 or more establishments, these strikes included 39 percent of the total workers involved and accounted for about 45 percent of the total idleness.

In some cases strikes extending to more than one establishment involved two or more plants of the same company, and in other cases they were more or less local industry strikes involving part or all of the local plants in a particular industry.

TABLE 8.—*Strikes Ending in 1941, by Number of Establishments Involved*

Number of establishments involved	Strikes		Workers involved		Man-days idle	
	Number	Percent of total	Number	Percent of total	Number	Percent of total
Total.....	4,314	100.0	2,364,297	100.0	23,009,296	100.0
1 establishment.....	3,253	75.4	980,836	41.5	9,075,617	39.4
2 to 5 establishments.....	656	15.2	378,828	16.0	3,138,903	13.6
6 to 10 establishments.....	146	3.4	72,190	3.1	499,767	2.2
11 establishments and over.....	259	6.0	932,443	39.4	10,295,009	44.8

### Duration of Strikes

Strikes ending in 1941 were of a little shorter duration on the average than those in the preceding year, partly as a result of greater assistance rendered by Government agencies in settling disputes and the greater urgency for quick settlements to avoid impeding the defense program. The average duration of the strikes ending in 1941 was 18 calendar days, as compared with 21 calendar days for 1940 strikes.<sup>2</sup> The workers involved in the 1941 strikes were idle on the average about 10 working days, as compared with 11½ in 1940.<sup>3</sup>

One-fourth of the strikes in 1941 lasted no longer than 3 days, and 65 percent of them were settled in less than one-half month after they began (table 9). Less than 3 percent of the strikes lasted as long as 3 months, 5.7 percent were in progress 2 months or more, 17.2 percent lasted 1 month or more, and 35.2 percent continued for one-half month or longer. About 43 percent of the total workers involved were out on strike less than a week, 33 percent were out from a week up to a month, and 24 percent were out for a month or more. At the same time, 60 percent of the total idleness resulted from strikes which lasted a month or more.

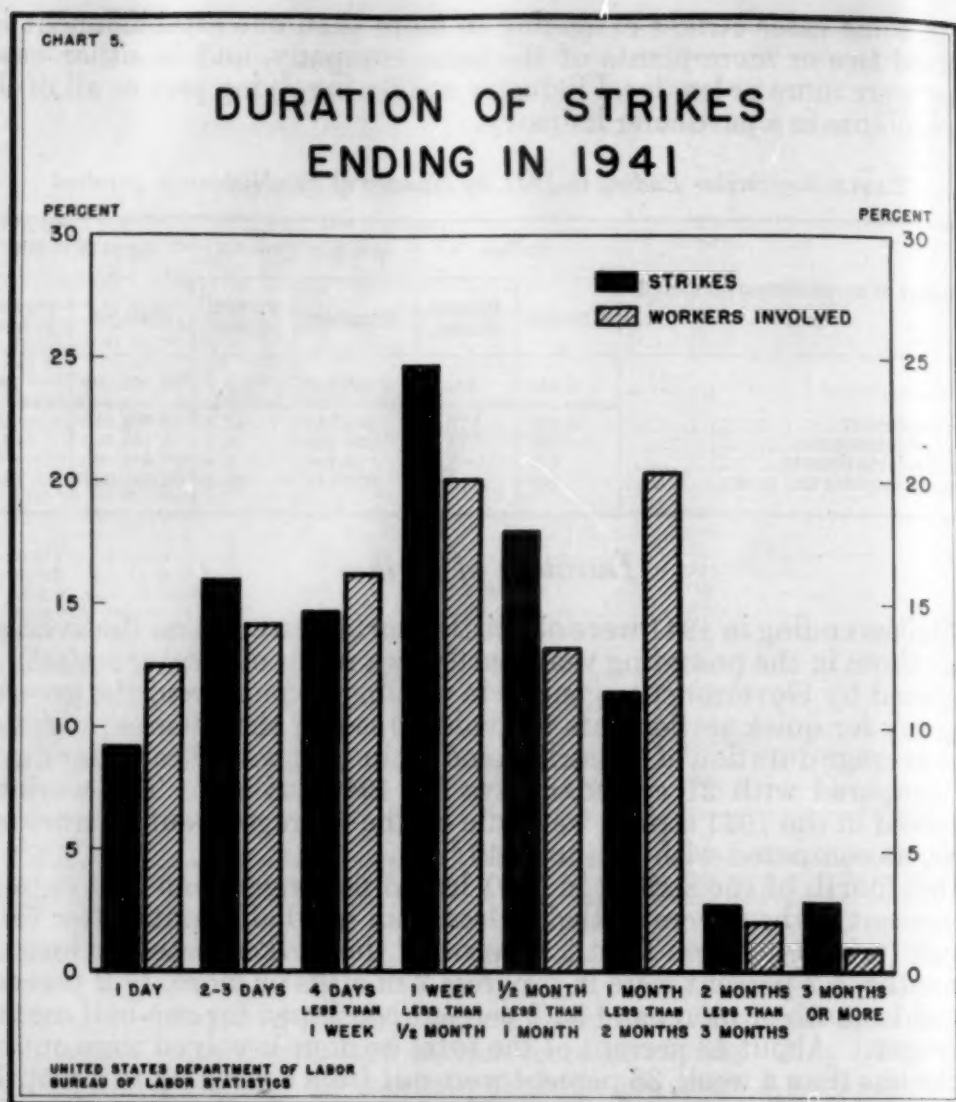
TABLE 9.—*Duration of Strikes Ending in 1941*

Duration of strikes	Strikes		Workers involved		Man-days idle	
	Number	Percent of total	Number	Percent of total	Number	Percent of total
Total.....	4,314	100.0	2,364,297	100.0	23,009,296	100.0
1 day.....	403	9.3	295,565	12.5	295,565	1.3
2-3 days.....	691	16.0	339,096	14.3	653,817	2.8
4 days and less than 1 week.....	634	14.7	385,357	16.3	1,186,507	5.2
1 week and less than ½ month.....	1,069	24.8	474,784	20.1	3,176,525	13.8
½ and less than 1 month.....	775	18.0	314,060	13.3	3,936,109	17.1
1 and less than 2 months.....	496	11.5	481,662	20.4	9,259,967	40.3
2 and less than 3 months.....	122	2.8	48,958	2.1	2,029,071	8.8
3 months or more.....	124	2.9	24,815	1.0	2,471,735	10.7

<sup>1</sup> These are simple averages based on the duration of each strike without reference to the number of workers involved or the number of man-days of idleness resulting.

<sup>2</sup> These also are simple averages obtained by dividing the total man-days idle by the total number of workers involved for each year.





### *Labor Organizations Involved*

American Federation of Labor unions were involved in the majority of the individual strikes during 1941, but unions affiliated with the Congress of Industrial Organizations were involved in strikes that accounted for the major part of the total idleness during all strikes. As regards the number of strikes, A. F. of L. unions were involved in 54 percent and C. I. O. unions in 37 percent.

Both A. F. of L. and C. I. O. unions were involved in the majority of the rival union disputes (4 percent of the total). The A. F. of L. strikes included one-fourth of the total workers involved and accounted for 30 percent of the total idleness during strikes, whereas the C. I. O. strikes included nearly 70 percent of the total number of workers involved and accounted for 65 percent of the total idleness.

Unions affiliated with neither of the two major organizations were involved in 93 strikes during the year. In 22 of these cases the unions were local organizations whose membership was confined to employees of one company, and in 3 cases they were unaffiliated railroad brotherhoods. Among the unions involved in the remaining cases were the Mechanics Educational Society of America, the

Independent Textile Union in and around Woonsocket, R. I., the International Typographical Union, which was unaffiliated at that time, and several small organizations existing only in one or more local areas.

In most strikes the union concerned called the strike and was involved from the beginning. In a few cases, however, the workers were unorganized when they struck; some union later came into the case and assisted in negotiating the settlement.

TABLE 10.—*Strikes Ending in 1941, by Affiliations of Labor Organizations Involved*

Labor organizations involved	Strikes		Workers involved		Man-days idle	
	Number	Percent of total	Number	Percent of total	Number	Percent of total
Total.....	4,314	100.0	2,364,207	100.0	23,009,296	100.0
American Federation of Labor.....	2,343	54.3	584,442	24.7	6,970,273	30.3
Congress of Industrial Organizations.....	1,581	36.6	1,641,044	69.5	14,903,980	64.8
Unaffiliated unions.....	68	1.6	26,321	1.1	261,665	1.1
Railroad brotherhoods.....	3	.1	106	( <sup>1</sup> )	824	( <sup>1</sup> )
Rival unions.....	167	3.9	86,158	3.6	736,234	3.2
Company unions.....	22	.5	4,007	.2	43,375	.2
No organization.....	130	3.0	22,219	.9	92,945	.4

<sup>1</sup> Less than a tenth of 1 percent.

### *Causes of Strikes*

Questions of wages and hours were major issues in 36 percent of the strikes. About 47 percent of the total workers involved were concerned primarily with these issues, and the idleness from these strikes amounted to 45 percent of the total. The vast majority of the strikes in this group were for wage increases. The large bituminous-coal stoppage is, of course, included in these totals. The proportions of strikes and of workers involved in strikes over wage issues were greater than in any year since 1935. This trend reflects the attempt of workers to keep their wages in line with the rising cost of living and to obtain their share of increasing profits from the rapidly expanding defense program.

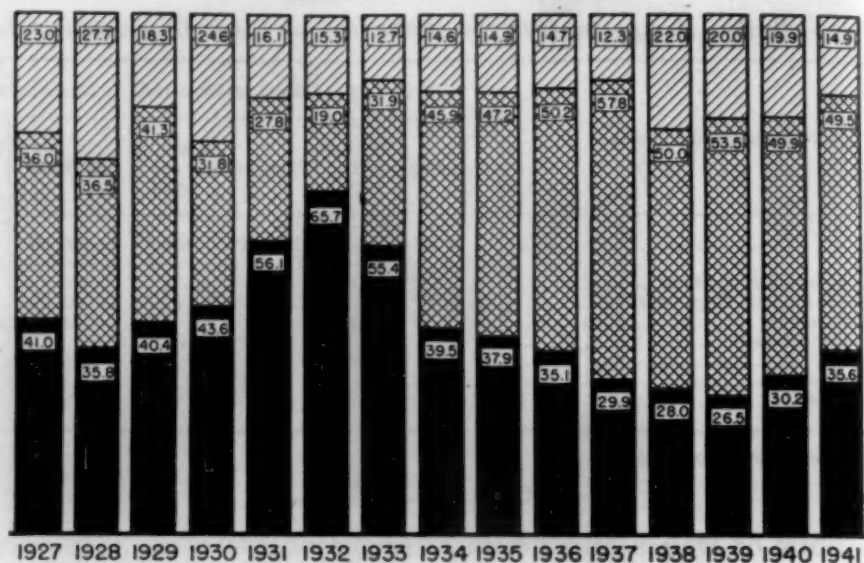
Union-organization matters—union recognition, closed or union shop, discrimination, etc.—were the major issues in about half of the strikes ending in 1941. Only 32 percent of the total workers involved were included in these strikes but 44 percent of the total man-days idle resulted from them. Union recognition was an important issue in 34 percent of the strikes and closed or union shop in 8 percent. If the widespread bituminous-coal stoppage which occurred in April were not included in the figures, the number of workers involved in union-organization strikes would be about the same as in wage-and-hour strikes and the idleness would greatly exceed the wage-and-hour strike idleness.

About 7 percent of the 1941 strikes, including 13 percent of the total workers involved and accounting for 8 percent of the total idleness, consisted of sympathy strikes, rival union or factional disputes, and jurisdictional strikes. Almost 8 percent of the total strikes, including 9 percent of the workers involved and 3 percent of the idleness were due to specific grievances over local working conditions, often relating to work loads, objectionable administrative methods, or physical surroundings.

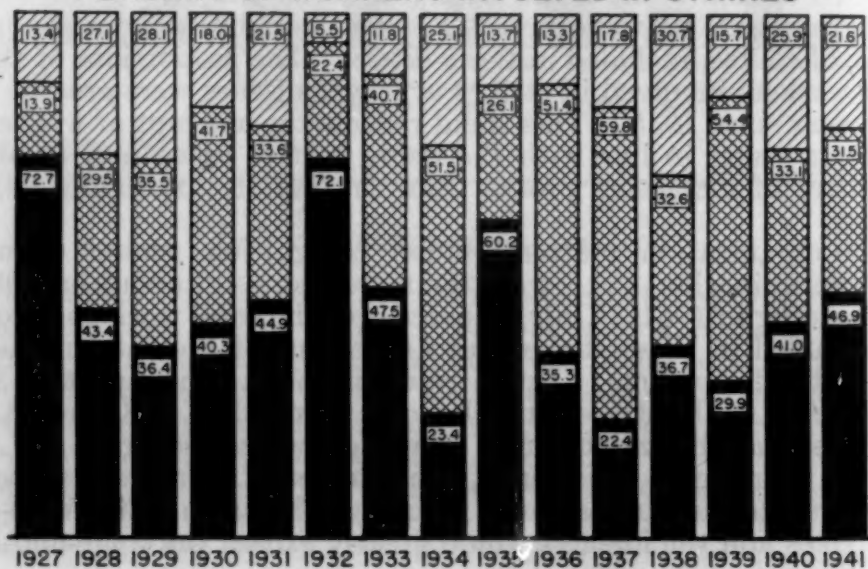
CHART 6

# MAJOR ISSUES INVOLVED IN STRIKES 1927-1941

## PERCENT OF STRIKES



## PERCENT OF WORKERS INVOLVED IN STRIKES



### MAJOR ISSUES:

- MISCELLANEOUS
- UNION ORGANIZATION
- WAGES AND HOURS

UNITED STATES DEPARTMENT OF LABOR  
BUREAU OF LABOR STATISTICS



TABLE 11.—Major Issues Involved in Strikes Ending in 1941

Major issue	Strikes		Workers involved		Man-days idle	
	Number	Per- cent of total	Number	Per- cent of total	Number	Per- cent of total
All issues.....	4,314	100.0	2,364,297	100.0	23,009,296	100.0
Wages and hours.....	1,535	35.6	1,108,378	46.9	10,447,964	45.4
Wage increase.....	1,335	31.0	1,032,886	43.8	9,943,365	43.3
Wage decrease.....	70	1.6	41,310	1.7	138,822	.6
Wage increase, hour decrease.....	117	2.7	33,719	1.4	356,207	1.5
Wage decrease, hour increase.....	3	.1	125	(1)	393	(1)
Hour increase.....	4	.1	113	(1)	7,202	(1)
Hour decrease.....	6	.1	225	(1)	1,975	(1)
Union organization.....	2,138	49.5	744,054	31.5	10,068,208	43.8
Recognition.....	406	9.4	196,756	8.3	2,482,900	10.7
Recognition and wages.....	805	18.6	215,518	9.1	3,373,970	14.7
Recognition and hours.....	2	(1)	46	(1)	113	(1)
Recognition, wages and hours.....	253	5.9	32,231	1.4	473,812	2.1
Discrimination.....	183	4.2	49,077	2.1	368,974	1.6
Strengthening bargaining position.....	85	2.0	84,397	3.6	822,375	3.6
Closed or union shop.....	358	8.3	144,499	6.1	2,385,593	10.4
Other.....	46	1.1	21,530	.9	160,471	.7
Miscellaneous.....	641	14.9	511,865	21.6	2,493,124	10.8
Sympathy.....	44	1.0	143,488	6.1	442,829	1.9
Rival unions or factions.....	179	4.1	117,912	5.0	1,094,332	4.8
Jurisdiction <sup>2</sup> .....	93	2.2	37,410	1.6	260,985	1.1
Other.....	311	7.3	212,270	8.9	673,518	2.9
Not reported.....	14	.3	785	(1)	21,460	.1

<sup>1</sup> Less than a tenth of 1 percent.

<sup>2</sup> It is probable that the figures here given do not include all jurisdictional strikes. Owing to the local nature of these disputes, it is difficult for the Bureau to find out about all of them.

### Results of Strikes

The classification of the results of strikes necessarily involves elements of judgment. An attempt must be made to compare the conditions achieved or existing after the strike to the demands or issues over which the strike occurred. The Bureau obtains the facts from the parties directly involved as well as from any third or neutral parties participating in the settlement negotiations. On the basis of such information, the Bureau evaluates the results of each strike and classifies the strike as to whether the workers' demands were substantially won, compromised, or lost. Such classification is based, however, on conditions as they appear to exist immediately after termination of the strike. Developments, months later, may reveal that an apparently successful strike eventually resulted in forcing an employer out of business with the consequent loss of the workers' jobs. On the other hand, an apparently unsuccessful strike may result in future improvements which could not be foreseen at the termination of the strike. The Bureau has no way of keeping in touch with these subsequent developments and must classify strikes on the basis of immediate results.

About 42 percent of the strikes ending in 1941 were substantially successful from the workers' point of view, 36 percent were settled on a compromise basis, and 15 percent brought the workers little or no gains. About 44 percent of the workers involved were in the successful strikes, 41 percent obtained compromise settlements, and 6 percent gained little or nothing. Approximately 48 percent of the total idleness resulted from the successful strikes, 38 percent from those

which were compromised, and 7 percent from those which brought the workers little or no gains. The settlement of about 6 percent of the strikes, which included 7 percent of the total workers involved, and accounted for 6 percent of the total idleness, involved questions of jurisdiction, union rivalry, or factionalism. The results of a few strikes were indeterminate or not reported.

TABLE 12.—Results of Strikes Ending in 1941

Result	Strikes		Workers involved		Man-days idle	
	Num-ber	Per-cent of total	Number	Per-cent of total	Number	Per-cent of total
Total.....	4,314	100.0	2,364,297	100.0	23,009,296	100.0
Substantial gains to workers.....	1,805	41.9	1,035,813	43.8	11,130,359	48.4
Partial gains or compromises.....	1,545	35.8	959,304	40.6	8,679,176	37.7
Little or no gains to workers.....	627	14.5	144,861	6.1	1,675,206	7.3
Jurisdiction, rival union, or faction settlements.....	272	6.3	155,322	6.6	1,355,317	5.9
Indeterminate.....	56	1.3	68,360	2.9	149,106	.6
Not reported.....	9	.2	637	(1)	20,132	.1

<sup>1</sup> Less than a tenth of 1 percent.

Table 13 indicates the results of each group of strikes having similar major issues. As between wage-and-hour strikes and union-organization strikes, there was not enough difference in proportionate results to say that either group was more successful on the whole than the other. While a slightly greater proportion of the organization strikes were substantially won, a larger proportion were substantially lost also, leaving a smaller proportion of strikes which were compromised than in the wage-and-hour disputes. The proportions of workers involved followed about the same pattern as number of strikes. In the wage-and-hour strikes, the proportion compromised was greater than the corresponding proportion in the union-organization group, while the proportions won and lost were a little less than in the union-organization group.

Some relationship between results and duration of the strikes ending in 1941 is indicated in table 14. Generally speaking, the successful strikes were of relatively short duration, whereas the strikes which could not be settled successfully soon after they began tended to be terminated either by compromises or unsuccessful settlements for the workers.

Of the strikes which lasted for 1 day up to 1 month, the proportion which was substantially won ranged from 42 to 49 percent. Only 37 percent of the strikes lasting from 1 to 2 months brought substantial gains to the workers, and of the strikes which lasted 2 months or more the proportion of successful settlements was only 24 to 26 percent. As for the strikes which were settled on a compromise basis, only 27½ percent of the 1-day strikes were compromised, while about 34 percent of the 2-day to a week strikes, and 50 percent of those lasting between 2 and 3 months resulted in compromise settlements. However, of the strikes continuing for 3 months or more, the proportion settled on a compromise basis was only 36 percent. There was little relationship between the strikes which were lost and

their duration, except that the highest percentages of lost strikes occurred in the 1-day disputes and in the extremely long disputes which lasted for 3 months or more.

TABLE 13.—Results of Strikes Ending in 1941, in Relation to Major Issues Involved

Major issue	Total		Strikes resulting in—					
	Number	Per cent	Substantial gains to workers	Partial gains or compromises	Little or no gains to workers	Jurisdiction, rival union, or faction settlements	Indeterminate	Not reported
	Strikes		Percent of strikes					
All issues.....	4,314	100.0	41.9	35.8	14.5	6.3	1.3	0.2
Wages and hours.....	1,535	100.0	44.6	44.7	10.4	—	.3	—
Wage increase.....	1,335	100.0	43.7	46.1	9.9	—	.3	—
Wage decrease.....	70	100.0	52.9	28.6	17.1	—	1.4	—
Wage increase, hour decrease.....	117	100.0	48.7	41.9	9.4	—	—	—
Wage decrease, hour increase.....	3	100.0	66.7	33.3	—	—	—	—
Hour increase.....	4	100.0	50.0	—	50.0	—	—	—
Hour decrease.....	6	100.0	50.0	16.7	33.3	—	—	—
Union organization.....	2,138	100.0	47.3	33.7	17.9	—	1.1	(1)
Recognition.....	406	100.0	40.5	27.3	31.5	—	.5	.2
Recognition and wages.....	805	100.0	58.4	30.3	11.2	—	.1	—
Recognition and hours.....	2	100.0	100.0	—	—	—	—	—
Recognition, wages, and hours.....	253	100.0	55.7	26.1	17.4	—	.8	—
Discrimination.....	183	100.0	35.0	40.5	24.0	—	.5	—
Strengthening bargaining position.....	85	100.0	32.9	37.7	12.9	—	16.5	—
Closed or union shop.....	358	100.0	34.4	49.4	15.6	—	.6	—
Other.....	46	100.0	41.3	34.8	21.7	—	2.2	—
Miscellaneous.....	641	100.0	17.2	21.5	13.3	42.4	4.4	1.2
Sympathy.....	44	100.0	29.5	18.2	11.4	—	40.9	—
Rival unions or factions.....	179	100.0	—	—	—	100.0	—	—
Jurisdiction.....	93	100.0	—	—	—	100.0	—	—
Other.....	311	100.0	30.9	41.8	24.1	—	3.2	—
Not reported.....	14	100.0	7.1	—	35.7	—	—	57.2
	Workers		Percent of workers involved					
All issues.....	2,264,297	100.0	43.8	40.6	6.1	6.6	2.9	(1)
Wages and hours.....	1,108,378	100.0	45.7	48.2	6.0	—	.1	—
Wage increase.....	1,032,886	100.0	47.3	48.9	3.7	—	.1	—
Wage decrease.....	41,310	100.0	16.4	16.7	66.4	—	.5	—
Wage increase, hour decrease.....	33,719	100.0	32.9	64.3	2.8	—	—	—
Wage decrease, hour increase.....	125	100.0	20.0	80.0	—	—	—	—
Hour increase.....	113	100.0	55.8	—	44.2	—	—	—
Hour decrease.....	225	100.0	72.4	2.7	24.9	—	—	—
Union organization.....	744,054	100.0	46.0	43.7	6.4	—	3.9	(1)
Recognition.....	196,756	100.0	62.5	31.3	4.2	—	2.0	(1)
Recognition and wages.....	215,518	100.0	41.2	51.1	7.5	—	.2	—
Recognition and hours.....	46	100.0	100.0	—	—	—	—	—
Recognition, wages, and hours.....	32,231	100.0	45.1	28.0	9.8	—	17.1	—
Discrimination.....	49,077	100.0	31.2	59.6	9.1	—	.1	—
Strengthening bargaining position.....	84,397	100.0	19.3	57.6	6.9	—	16.2	—
Closed or union shop.....	144,499	100.0	51.3	39.9	5.4	—	3.4	—
Other.....	21,530	100.0	48.7	39.9	9.4	—	2.0	—
Miscellaneous.....	511,865	100.0	36.6	19.5	6.0	30.3	7.5	0.1
Sympathy.....	143,488	100.0	93.5	.6	.3	—	5.6	—
Rival unions or factions.....	117,912	100.0	—	—	—	100.0	—	—
Jurisdiction.....	37,410	100.0	—	—	—	100.0	—	—
Other.....	212,270	100.0	24.8	46.6	14.2	—	14.4	—
Not reported.....	785	100.0	5.4	—	14.8	—	—	79.8

<sup>1</sup> Less than a tenth of 1 percent.



TABLE 14.—Results of Strikes Ending in 1941 in Relation to Their Duration

Duration of strikes	Total	Number of strikes resulting in—				Total	Percent of strikes resulting in—			
		Substantial gains to workers	Partial gains or compromises	Little or no gains to workers	Other <sup>1</sup>		Substantial gains to workers	Partial gains or compromises	Little or no gains to workers	Other <sup>1</sup>
Total.....	4,314	1,805	1,545	627	337	100.0	41.9	35.8	14.5	7.8
1 day.....	403	172	111	79	41	100.0	42.7	27.5	19.6	10.2
2-3 days.....	691	293	233	100	65	100.0	42.4	33.7	14.5	9.4
4 days and less than 1 week.....	634	311	214	72	37	100.0	49.0	33.8	11.4	5.8
1 week and less than 1/2 month.....	1,069	463	384	148	74	100.0	43.4	35.9	13.8	6.9
1/2 and less than 1 month.....	775	324	296	91	64	100.0	41.8	38.2	11.7	8.3
1 and less than 2 months.....	496	181	201	81	33	100.0	36.5	40.5	16.3	6.7
2 and less than 3 months.....	122	29	61	21	11	100.0	23.8	50.0	17.2	9.0
3 months or more.....	124	32	45	35	12	100.0	25.8	36.3	28.2	9.7

<sup>1</sup> Includes strikes for which sufficient information was not available, as well as those involving rival unions and questions of jurisdiction, the results of which cannot be evaluated in terms of their effect on the welfare of all workers concerned.

In table 15 the strikes involving up to 5,000 workers were sufficiently large in number to permit some conclusions as to the relation between results and number of workers involved. The small strikes tended to be quite definitely either won or lost with a relatively small proportion being compromised. The proportion of successful strikes was large among those involving fewer than 100 workers but was smaller in the strikes involving larger numbers of workers. There were fewer compromise settlements among the small strikes than among the strikes involving greater numbers of workers. The proportion of lost strikes was greater among those of the smallest size than among those of medium size.

The number of strikes in the last two classifications of the table—strikes involving 5,000 or more workers—is too small to indicate any particular pattern. A substantial proportion (16 percent) of the strikes involving from 5,000 to 10,000 workers were lost, whereas only 3 percent of those involving 10,000 and over were lost. The majority of the extremely large strikes were settled on a compromise basis.

TABLE 15.—Results of Strikes Ending in 1941 in Relation to Number of Workers Involved

Number of workers involved	Total	Number of strikes resulting in—				Total	Percent of strikes resulting in—			
		Substantial gains to workers	Partial gains or compromises	Little or no gains to workers	Other <sup>1</sup>		Substantial gains to workers	Partial gains or compromises	Little or no gains to workers	Other <sup>1</sup>
Total.....	4,314	1,805	1,545	627	337	100.0	41.9	35.8	14.5	7.8
6 and under 20.....	721	317	166	189	49	100.0	44.0	23.0	26.2	6.8
20 and under 100.....	1,570	732	472	252	114	100.0	46.5	30.1	16.1	7.3
100 and under 250.....	872	360	356	89	67	100.0	41.3	40.8	10.2	7.7
250 and under 500.....	492	192	216	44	40	100.0	39.0	44.0	8.9	8.1
500 and under 1,000.....	335	116	161	27	31	100.0	34.6	48.0	8.1	9.3
1,000 and under 5,000.....	270	74	149	21	26	100.0	27.4	55.2	7.8	9.6
5,000 and under 10,000.....	25	5	10	4	6	100.0	20.0	40.0	16.0	24.0
10,000 and over.....	29	9	15	1	4	100.0	31.0	51.8	3.4	13.8

<sup>1</sup> Includes strikes for which sufficient information was not available, as well as those involving rival unions, jurisdiction, and other questions, the results of which cannot be evaluated in terms of their effect on the welfare of all workers concerned.

*Methods of Negotiating Settlements*

Slightly more than half of the strikes ending in 1941 were settled with the assistance of Government officials or boards. Nearly three-fourths of the total workers involved were included in these strikes, and they accounted for approximately 85 percent of the total idleness during all strikes. About one-third of the strikes were settled directly between employers and union officials without the assistance of third parties. These were smaller strikes on the average, including about one-fourth of the total workers and only 11 percent of the total idleness involved.

Of the 2,279 strikes terminated with the assistance of Government agencies, 2,183 were settled by conciliation or mediation methods. All or some of the disputed issues went to arbitration in 93 cases. In 3 cases—North American Aviation, Inc., at Inglewood, Calif., Federal Shipbuilding & Drydock Co., at Kearny, N. J., and Air Associates, Inc., at Bendix, N. J.—the plants were taken over and operated temporarily by the Federal Government.

As indicated in table 16, there were a few strikes settled directly between employers and workers without the aid of union officials, and a few settled with the assistance of private conciliators or arbitrators—conciliation methods in 7 and arbitration in 28. A total of 121 strikes were settled by arbitration, either by a private or a public agency.

Nearly 11 percent of the strikes were terminated without formal settlements, but these included only 3 percent of the total workers involved, and accounted for only 4 percent of the total idleness. In most of these cases, the strikers lost their jobs when employers hired new workers to take their places or else closed down operations permanently. In a few cases, however, the strikes were simply called off without settlements and the workers returned on terms offered by their respective employers.

TABLE 16.—*Methods of Negotiating Settlements of Strikes Ending in 1941*

Agency by which negotiations toward settlements were carried on	Strikes		Workers involved		Man-days idle	
	Number	Per-cent of total	Number	Per-cent of total	Number	Per-cent of total
All agencies.....	4,314	100.0	2,364,297	100.0	23,009,296	100.0
Employers and workers directly.....	89	2.1	16,352	.7	62,134	.3
Employers and representatives of organized workers directly.....	1,451	33.6	563,599	23.8	2,479,329	10.8
Government officials or boards.....	2,279	52.8	1,704,229	72.1	19,534,034	84.8
Private conciliators or arbitrators.....	35	.8	5,080	.2	89,908	.4
Terminated without formal settlement.....	460	10.7	75,037	3.2	843,891	3.7



## STRIKES SINCE THE DECLARATION OF WAR

FROM December 8, 1941, to the end of March 1942 there were approximately 669 strikes, in which 170,592 workers were involved.<sup>1</sup> Strike idleness during this period amounted to a little more than 1½ million man-days. More than one-fifth of these strikes have been

<sup>1</sup> See footnotes to table.

classified as affecting war work directly or indirectly, whether in the production of materials, the construction of essential buildings, the transportation of war goods or the furnishing of other services related to the war. Figures for the individual months are given in the table below.

It should be pointed out that the degree to which the strikes affected war work varied a great deal. In some cases practically all and in others only a portion of the workers involved were engaged in the production of war materials. For this reason it cannot be said that all idleness resulting from these strikes was a loss of this much war production time. In fact, one of the large strikes included among those affecting war work was a strike of about 2,500 laundry workers in New Orleans, La., which affected war work very little. On the other hand, some small strikes, by interfering with the production or flow of strategic materials, may cause bottlenecks and delays far more serious than indicated by the measure of idleness of the striking workers.

*Strikes from December 8, 1941, through March 1942*

Month	All strikes <sup>1</sup>			Strikes affecting war work <sup>2</sup>		
	Number of strikes beginning in month	Number of workers involved	Number of man-days idle	Number of strikes beginning in month	Number of workers involved	Number of man-days idle
Total.....	669	170,592	1,368,312	150	73,459	390,858
Dec. 8-31, 1941.....	84	16,092	303,312	7	2,310	59,281
January 1942.....	155	32,500	390,000	27	11,605	46,197
February 1942.....	190	57,000	425,000	50	24,587	118,700
March 1942.....	240	65,000	450,000	66	34,957	166,680

<sup>1</sup> All 1941 figures final. Figures for the 3 months of 1942 are the Bureau's preliminary estimates.

<sup>2</sup> As determined by Joint Committee of Representatives from War, Navy, and Labor Departments, Maritime Commission, War Labor Board, and War Production Board. The Bureau of Labor Statistics does not participate in the classification of these strikes but it does furnish the statistics derived from the strike list as compiled by the Joint Committee.

There has been no unusual concentration of strikes for any particular cause since the declaration of war, although many of them grew out of conditions and problems directly related to changing conditions incident to the war effort. Increased wages have been demanded to keep pace with rising living costs; greatly increased employment forces have raised questions of security for established unions; and war hazards for workers in certain occupations have resulted in demands for war-risk insurance, etc. Many disputes, on the other hand, have developed over issues of recognition, discrimination, and local grievances which would be just as likely to occur in peacetime.

Half of the total idleness in war strikes during the first quarter of 1942 occurred in the seven large strikes which had over 10,000 man-days of idleness. These strikes are referred to briefly below.

*Berkshire Fine Spinning Associates, Inc., Fall River, Mass.*

Previous to this strike the textile Workers' Union of America (C. I. O.) had been certified by the National Labor Relations Board as sole bargaining agent for plant employees, although workers in some of the skilled crafts belonged to the unaffiliated American Feder-



ation of Textile Operatives. Members of the latter organization refused to work with a knot-tier, who had joined the C. I. O. union after once belonging to their organization, and members of the C. I. O. union threatened to strike if the man was not retained on his regular job.

A stoppage by A. F. T. O. members soon tied up the entire plant, making 2,000 employees idle. The A. F. T. O. petitioned the National Labor Relations Board to reconsider its certification of the C. I. O. union and allow bargaining on a craft basis in certain departments employing its members. Conferences with a representative of the War Labor Board and other Government agencies produced an agreement whereby the knot-tier in dispute was not to be employed, pending the decision of the N. L. R. B., but in the meantime his weekly wages were to be paid by the A. F. T. O. Work was resumed on January 26, within a week after the strike began.

### *Textile Mills, Fall River, Mass.*

This strike, which lasted from March 24 to April 6, was an outgrowth of the dispute described above. When the National Labor Relations Board rejected the petition of the American Federation of Textile Operatives the knot-tier involved was returned to his job. A. F. T. O. members refused to work with him since he now belonged to the opposing union (T. W. U. A. of the C. I. O.). They were joined by their members in other Fall River plants with the consequence that all of the major textile mills were soon shut down and about 16,000 workers were idle.

After several days of negotiations carried on by representatives of the War Labor Board and other Government officials the strike was terminated when both unions accepted the plan whereby the individual knot-tier in dispute would not be restored to his old job but would be given work and equal pay in some other department.

### *Waterproof Garment Companies, Boston, Mass.*

A contract between the International Ladies' Garment Workers' Union and the New England Clothing and Rainwear Manufacturing Association expired January 31. The 1,500 workers employed by members of the Association called a strike on February 18, after negotiations failed to bring about a new contract providing for a 25-percent wage increase to offset rising living costs. After about 2 weeks' stoppage the companies and the union agreed upon a wage increase of 10 percent, a closed shop, overtime pay of time and one-half after 8 hours on any day (formerly after 40 hours per week), and vacations with pay. It was further provided that the wage question may be opened again, depending on advance in living costs.

### *Federated Fishing Boats of New England and New York, Inc.*

About 1,000 fishermen, in addition to several hundred shore workers, were idle in connection with this dispute which lasted from January 6 to February 15. The principal issue was whether the cost of war-risk insurance for the fishermen should be borne by the men or by the boat owners. The men and their union—Atlantic Fishermen's Union,

A. F. of L.—demanded \$5,000 insurance for each fisherman to safeguard his family because of the submarine hazard of fishing in the North Atlantic. The boat owners contended that the fishermen were partners rather than employees and should pay for their own insurance since they share in the proceeds of the catch rather than being paid straight wages.

The War Labor Board, which entered the dispute soon after the stoppage began, proposed that the employers advance the amount of the first premiums and leave the final determination of who should bear the cost to the Board while operations went forward. The union agreed to resume operations on this basis, but the employers refused. When employers' representatives refused to attend a final hearing on the merits of the case, the Board issued its decision to the effect that the employers should purchase the necessary insurance, that fishing operations should be resumed at once while a determination as to the proper division of the cost should be made by the Board after a hearing on the merits. Operations were resumed accordingly on February 16. The Board later (April 3) decided that the insurance costs should be divided equally between the fishermen and the employers.

#### *Hazel-Atlas Glass Company, Clarksburg, W. Va.*

Approximately 1,500 workers were idle in connection with this strike from February 23 to March 5. In October 1941 the American Flint Glass Workers' Union (A. F. of L.) signed an agreement with the company, with the understanding that a seniority clause would be worked out later and become a part of the agreement. The workers struck in February, charging that the company would not meet with their committee to complete the clause in question. The strike was settled March 5, with the assistance of the United States Conciliation Service, when the parties set March 26 as the date to meet and complete the agreement.

#### *New Orleans Laundry Workers*

Approximately 2,500 workers, represented by the Amalgamated Clothing Workers of America (C. I. O.), went on strike March 16 for increased wages. When efforts of a Federal conciliator failed to bring about a settlement, the dispute was certified to the War Labor Board. As requested by the Board, operations were resumed March 31, pending settlement of the issues at a hearing to be held by the Board.

#### *E-Z Mills, Inc., Bennington, Vt.*

Although only about 400 workers were involved in this strike, the amount of idleness resulting was fairly large because the strike continued for over 3 months. The employees belonged to the International Upholsterers' Union, A. F. of L., when the strike began about the middle of November, but later were transferred into a unit of the International Ladies' Garment Workers' Union. The principal issues were a wage increase and a union shop. After the strike had been in progress for several weeks, it was certified to the War Labor Board and finally called off at the request of the Board on February 24. An interim agreement was signed providing for a 10-percent increase in wages, with a decision on any other issues left to the WLB.

## ACTIVITIES OF THE UNITED STATES CONCILIATION SERVICE, MARCH 1942

THE United States Conciliation Service, during March, disposed of 648 situations involving 411,602 workers (table 1). The services of this agency were requested by the employers, employees, and other interested parties. Of these situations 107 were strikes and lock-outs involving 44,589 workers; 417 were threatened strikes and con-

TABLE 1.—*Situations Disposed of by United States Conciliation Service, March 1942, by Type of Situation*

Type of situation	Number	Workers involved
All situations handled.....	648	411,602
Disputes.....	524	212,898
Strikes.....	101	44,343
Threatened strikes.....	151	51,334
Lock-outs.....	6	246
Controversies.....	266	116,975
Other situations.....	61	15,033
Investigations.....	14	5,574
Technical services.....	6	3,237
Arbitrations.....	16	4,206
Requests to conduct consent elections.....	3	315
Consultations.....	7	101
Special services of Commissioners.....	10	1,593
Complaints.....	5	7
Disputes referred to other agencies during negotiations.....	63	183,671
To National War Labor Board.....	34	173,177
To National Labor Relations Board.....	25	8,259
To other Federal agencies.....	1	235
To nongovernmental agencies.....	1	200
To State agencies.....	2	1,800

TABLE 2.—*Situations Disposed of by United States Conciliation Service, March 1942, by Industries*

Industry	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All industries.....	587	396,569	61	15,033	648	411,602
Automobile.....	10	7,090			10	7,090
Building trades.....	47	41,337	3	108	50	41,445
Chemicals.....	22	3,985	1	200	23	4,185
Communications.....	8	25,826			8	25,826
Domestic and personal.....	9	3,458	4	2,615	13	6,073
Electrical equipment.....	21	29,389	3	177	24	29,566
Food.....	42	7,251	2	3	44	7,254
Furniture and finished lumber.....	10	4,482	2	66	12	4,548
Iron and steel.....	107	50,930	5	1,873	112	52,803
Leather.....	5	6,850	4	4,015	9	10,865
Lumber.....	29	44,955			29	44,955
Machinery.....	40	37,883	2	908	42	38,791
Maritime.....	7	8,878	2	415	9	9,293
Mining.....	5	808			5	808
Nonferrous metals.....	19	34,674	1	37	20	34,711
Paper.....	11	2,318	2	706	13	3,024
Petroleum.....	5	1,951	1	21	6	1,972
Printing.....	10	1,138	1	350	11	1,488
Professional.....	3	180			3	180
Rubber.....	8	12,686	1	15	9	12,701
Stone, clay, and glass.....	22	5,216	2	279	24	5,495
Textile.....	31	20,706	7	1,113	38	21,819
Tobacco.....	5	1,990	1	250	6	2,240
Trade.....	23	3,116	2	265	25	3,381
Transportation.....	37	13,589	2	101	39	13,690
Transportation equipment.....	27	18,875			27	18,875
Utilities.....	7	2,811	1	1	8	2,812
Unclassified.....	17	4,197	12	1,515	29	5,712



troversies involving 168,309 workers. Thirty-four disputes were certified during the month to the National War Labor Board, and jurisdiction was assumed by other agencies in 29 others. The remaining 61 situations included investigations, arbitrations, requests for information, consultations, etc.

The facilities of the Service were used in 28 major industrial fields, such as building trades, and the manufacture of foods, iron and steel, textiles, etc. (table 2), and were utilized by employees and employers in 44 States, the District of Columbia, and Puerto Rico (table 3).

TABLE 3.—Situations Disposed of by United States Conciliation Service, March 1942, by States

State	Disputes		Other situations		Total	
	Num- ber	Workers involved	Num- ber	Workers involved	Num- ber	Workers involved
All States.....	587	396,569	61	15,033	648	411,602
Alabama.....	14	18,698	1	200	15	18,898
Arizona.....	5	184			5	184
Arkansas.....	3	4,210			3	4,210
California.....	51	15,871	6	2,990	57	18,861
Colorado.....	1	236			1	236
Connecticut.....	4	5,000			4	5,000
Delaware.....	2	395			2	395
District of Columbia.....	3	254	3	315	6	569
Florida.....	14	902	3	407	17	1,309
Georgia.....	2	532			2	532
Idaho.....	1	65			1	65
Illinois.....	35	28,782	1	300	36	29,082
Indiana.....	30	6,898	2	921	32	7,819
Iowa.....	3	420			3	420
Kansas.....	7	584			7	584
Kentucky.....	7	3,284			7	3,284
Louisiana.....	23	17,521	4	651	27	18,172
Maine.....	1	100			1	100
Maryland.....	8	6,034	1	5	9	6,039
Massachusetts.....	14	10,214	7	3,745	21	13,959
Michigan.....	48	24,577	2	675	50	25,252
Minnesota.....	6	3,379	1	2	7	3,381
Mississippi.....	1	500			1	500
Missouri.....	16	3,828	1	1	17	3,829
Montana.....	8	112			8	112
Nebraska.....	4	9,710			4	9,710
Nevada.....	1	4			1	4
New Jersey.....	10	27,406	2	700	12	28,106
New Mexico.....	2	510	1	1	3	511
New York.....	58	29,210	4	657	62	29,867
North Carolina.....	9	5,488	3	63	12	5,551
Ohio.....	59	30,103	6	1,585	65	31,688
Oklahoma.....	4	484			4	484
Oregon.....	15	4,345	1	126	16	4,471
Pennsylvania.....	36	45,705	4	407	40	46,112
Puerto Rico.....	6	23,975			6	23,975
Rhode Island.....	2	1,500			2	1,500
South Carolina.....	7	5,708	1	800	8	6,508
South Dakota.....	3	271			3	271
Tennessee.....	20	4,750	1	20	21	4,770
Texas.....	8	8,188			8	8,188
Utah.....	1	178			1	178
Virginia.....	6	1,426	2	253	8	1,679
Washington.....	8	36,393	1	32	9	36,425
West Virginia.....	9	7,158	2	77	11	7,235
Wisconsin.....	12	1,477	1	100	13	1,577

# Social Security

## INTERNATIONAL PROGRAM FOR SOCIAL SECURITY

A RECENT review of social-insurance and social-assistance measures in different countries, by the International Labor Office,<sup>1</sup> is designed to show the contribution these methods of bearing social risks have made to social security and also to prepare the way for the planning of a complete social-security program for the reconstruction which must follow the war. The purpose of the survey was to trace, among the various schemes that have been tried, the evolutionary movement directed by experience.

### *Social Assistance*

Attempts to care for the poor—the aged, infirm, workless, and orphans—date back more than a thousand years, but in the schemes of some medieval cities, and in the first national poor laws, notably the English Act of 1601, the beginnings of rational and systematic treatment of poverty arising out of emergencies are found. Although repression was a principal consideration in these laws, they included, ideally at least, medical care, the provision of work, and vocational training.

The idea of mutual aid as developed in the societies of workers who banded together to meet their common misfortunes, and the discovery in the 17th century of a law of mortality which provided a mathematical basis for the development of life insurance as a commercial enterprise, gave rise at the beginning of the present century to two main currents in the social-security movement. These are, on the one hand, social assistance, which represents the obligation of the community to its dependent groups, and on the other, social insurance, which is based on compulsory mutual aid. Both of these are needed in a complete plan of social security.

Assistance systems financed and operated by local authorities are characterized by inequalities of treatment as between the richer and poorer localities and inefficient methods in the smaller ones. The report points out that experience has shown that assistance has approached adequacy in quality and quantity only in proportion to the increase in State intervention. In the present century there has been a steady growth in State intervention, the general policy of central governments being to create special schemes of assistance for distinct types of need, or to encourage local governments to do so. In this case it has been the policy of the State to grant subsidies conditional upon the achievement of prescribed minimum standards of service. Such special schemes are termed "social assistance,"

<sup>1</sup> International Labor Office. *Approaches to Social Security—An International Survey*. Montreal, 1942. (Studies and Reports, Series M, No. 18.)

which differentiates them from the general scheme of poor relief. The general attitude toward poverty has changed since 1900. Formerly pauperism was dealt with harshly, the receipt of poor relief in several countries involving the loss of the right to vote until the relief was repaid. The trend in this century, however, has been toward assistance which will enable individuals to reach a certain standard of living, without any political disqualification being involved.

Prior to 1900, examples of social assistance were to be found mainly in the provision of medical care, especially hospital care, but in the first decade of the present century noncontributory old-age pensions were introduced in several countries. After the first World War, governments began to make provision for the control of tuberculosis and venereal diseases and for maternal and child welfare, while in the economic depression of the thirties many State systems of unemployment assistance were established.

Family welfare has had a prominent place in the social policy of governments, but formerly State concern was directed mainly toward the mental and moral welfare of children, with education and guardianship of neglected or abandoned children. However, as a result of the loss of manpower in the first World War and a falling birth rate, legislation was directed toward population problems, first providing for maternity care and medical needs of mothers and later giving medical care to school children, although this care has preferably been provided through sickness insurance. The recognition of the importance of nutrition has been of special benefit to children, as it is usual to provide special nourishment for expectant and nursing mothers and milk for infants. Meals for school children are being supplied in an increasing number of countries. In addition to these forms of assistance, many countries encourage family life through various forms of cash assistance, such as benefits to women who abstain from work before and after childbirth, marriage bounties, payments on the birth of children, and family allowances. These payments are usually provided under contributory insurance systems.

The principal forms of assistance as developed in the different countries are noncontributory old-age and invalidity pensions, mothers' pensions, unemployment assistance, medical assistance, and rehabilitation of the disabled.

### *Social Insurance*

Compulsory social insurance has developed gradually over a period of nearly 60 years. At first there was no perception of the essential unity of the risk, i. e., loss of earnings resulting from accident, sickness, invalidity, old age, death, and unemployment, but from the outset compulsory insurance has had the purpose of rendering the wage earner as independent of relief as possible, on the principle that his wage should include an insurance premium covering the risk of its involuntary loss, the liability of the State being merely subsidiary.

The first great European schemes were founded on the voluntary sickness funds, the employers' liability principle, and the pension funds which had long existed for civil servants, miners, seamen, etc.

\* \* \* From the beginning, social insurance has therefore distinguished between the accident risk, for which the employer is held solely liable, and the general physical risks, which are regarded as the common concern of employers



and workers. The general physical risks have in turn been classified, for the purpose of organization, according as they imply short-term cash and medical benefits (sickness), or long-term cash benefits (old age, death, and invalidity). When, years later, unemployment was added to the risks covered by social insurance, the starting point was the voluntary insurance conducted by the trade-unions.

A number of European countries experimented with State subsidies to the voluntary insurance systems instead of changing directly from voluntary to compulsory insurance. However, in most cases the countries preferred compulsory insurance which enables the system to reach, through the employer, the whole employed population, including apprentices and unskilled workers. Also, under compulsory insurance, in addition to the workers' contribution, a contribution by the employer is always imposed, so that the resources of the scheme are greatly increased; and a State subsidy is usually paid as a result of the interest of the State in the promotion of social welfare.

In general, a more or less simple employers' liability law, which operates with a minimum of Government intervention, has preceded the introduction of any branch of compulsory insurance. Under voluntary systems sickness insurance was usually the first risk to be covered—a risk easily converted into a compulsory scheme. In some cases, however, since there was already a voluntary sickness-insurance system, the Government, when instituting a compulsory system, first turned its attention to pension insurance. Compulsory unemployment-insurance systems were, in general, of somewhat later development. Although social insurance has been developed on the bases of these different systems, the report states that "it is certain that social insurance, as built up principally in Europe between 1880 and 1930, has made an immense contribution to the social security of the employed population, and that the same broad principles are capable of effective application in a wide variety of cultures."

The original divisions of social insurance—workmen's compensation, sickness insurance, pensions, and unemployment insurance—have been operated more or less independently, but all the branches have been influenced by common tendencies, the sharing of which has brought them closer together in method of organization, scope, benefit policy, and finance.

The leading tendency in the organization of social insurance has been toward centralization. "This tendency, which is paralleled in many other fields of social life, is here characterized by the spreading of responsibility for common risks over an ever more numerous group; occupational schemes give place to those which embrace all trades without distinction, and the area served by an institution grows larger."

In most of the highly industrialized countries there has been a broad trend toward bringing all persons employed in manual work and the lower ranks of salaried employees within the scope of compulsory insurance in all its branches. The coverage of agriculture has been slower, although accident, sickness, or pension insurance has been extended to farm workers in a number of countries. In regard to the exclusion of workers whose earnings exceed a prescribed amount, about one-fourth of the schemes in the 30 countries where social-insurance systems are of some importance at the present time exclude all such workers, and about the same proportion apply the earnings limit only to salaried employees. There has been a movement in recent years

to bring independent workers within the scope of social insurance, particularly for pensions.

Recent changes and trends in the benefit provisions of the different branches of social insurance have been in the direction of maintaining the insurance protection for workers who are unable to continue their contributions because of sickness or unemployment. In the more highly developed systems the unemployed have thus been able to claim the benefits of sickness insurance, and the sick to retain their status in the unemployment fund, while older workers have been enabled to secure rights to minimum pensions by a generous shortening of the qualifying period. In accident insurance, coverage has been extended to a wide range of diseases, particularly in countries in which sickness insurance is still lacking.

In summing up the two movements towards social security—social assistance and social insurance—the report states that “social assistance is a progression from poor relief in the direction of social insurance, while social insurance is a progression from private insurance in the direction of social assistance. \* \* \* If present-day developments have been correctly read, social assistance and social insurance are moving ever closer to one another.” These two branches may even meet and combine, as, for example, in the social-security system of New Zealand, with its practically universal coverage, where it is no longer possible to say whether social assistance or social insurance predominates, but only that the country possesses a national system of social security.

# Housing Conditions

## NEW DWELLING UNITS IN NONFARM AREAS, 1940 AND 1941<sup>1</sup>

### Summary

RESIDENTIAL construction started during 1941 will provide 715,000 new dwelling units for nonfarm families, most of them in areas where war production and other war activities are concentrated. This estimate represents an increase of 19 percent over the 603,000 nonfarm dwelling units provided during 1940 and is about double the 359,000 annual average for the period 1935-39.

The 613,000 new 1-family dwellings begun during 1941 was in excess of the volume produced in any previous year in the history of the United States. Two-family and apartment units, however, decreased in number from 1940 to 1941. Among the important factors contributing to the increasing importance of the 1-family total were the tendencies to build more new housing in smaller cities and rural areas and to provide a greater proportion of 1-family units in public projects.

Projects financed with public funds during 1941 will provide accommodations for 95,740 families, or 13 percent of the nonfarm total, as compared with 73,029 units, or 10 percent of the total, during 1940. Included in publicly financed projects during 1940 and 1941 are 32,086 and 88,715 units, respectively, specifically designated for families of war workers and military personnel. Funds appropriated for defense housing under the Lanham Act, and spent under direction of the Federal Works Administrator, accounted for 75,148 units completed or under construction contract by the end of 1941. Slum-clearance projects sponsored by the United States Housing Authority during 1941 contained 23,440 units, of which 16,415 were designated for defense workers. United States Housing Authority projects during 1940 contained 50,841 family units.

The permit valuation of the 715,000 new nonfarm units during 1941 is estimated at \$2,503,000,000, of which publicly financed projects represented \$322,013,000. During 1940, the permit valuation of the 603,000 units aggregated \$2,021,000,000, of which \$227,289,000 was for public projects. Since permit valuations generally understate costs, completion of the new units upon which construction was started during 1941 will involve expenditures of at least \$2,840,000,000.

### Scope of Report

Estimates of residential construction presented here are intended to cover all such activity within the "nonfarm area" (all urban and rural

<sup>1</sup> Prepared by Sidney Jaffe, of the Bureau's Division of Construction and Public Employment, under the supervision of Herman B. Byer, chief.



nonfarm places). The urban designation is applied to all incorporated places with 1940 population of 2,500 or greater, and also, by special rule, to a small number of unincorporated civil divisions. In the class of rural nonfarm construction is placed all activity for nonagricultural use in unincorporated areas and in incorporated places of less than 2,500 population. Thus, whereas urban construction actually corresponds to a definite area, rural nonfarm construction depends for its classification upon the intended use of the individual buildings.

A special study of the preliminary results of the 1940 Census of Housing recently revealed that the true level of residential construction during the 1930's had been understated in estimates published by the Bureau of Labor Statistics and National Bureau of Economic Research.<sup>2</sup> The 1930-39 estimates were accordingly revised, and the 1940 and 1941 estimates are consistent with the new level indicated for the previous years. All of these estimates are preliminary and will undergo further analysis when the complete data of the 1940 census become available.

In preparing current estimates of residential construction, the basic source used has been building-permit reports collected by the Bureau of Labor Statistics. The Bureau began the regular collection of these data in 1920, at first including only the larger cities. Since that time coverage of the sample has been steadily expanded until it now includes more than 2,400 urban cities and 1,000 rural incorporated places. In addition to the sample of cities, since 1939 a small number of counties have reported building permits issued in their unincorporated areas. A valuable supplementary source of information has become available within the last few months and has been of special use in estimating for rural areas. This is the Defense Housing Survey, a joint enterprise of the Bureau of Labor Statistics, the Division of Defense Housing Coordination, and the Work Projects Administration. The reports issued to date cover residential construction during 1940 and 1941 in 93 areas of great war-industry activity and additional reports covering 60 more areas are scheduled to be released in the next few months.<sup>3</sup>

Since building permits are issued when construction work is about to start, estimates derived from permits represent future dwelling-unit capacity of buildings upon which construction work was started in the period specified. No attempt is made here to estimate the number of family accommodations gained by alterations and conversions or those lost by demolitions.

### *Trend in Residential Construction, 1920-41*

With 715,000 new dwelling units provided for nonfarm families, residential construction during 1941 continued its upward climb of the last 8 years. The 1941 total is more than twice the annual average of 300,000 units for the preceding decade, and is also slightly more than the 703,000 average for the decade of the 1920's. The last year of greater activity was 1928, when new family accommodations totaled 753,000 units. From that point it dropped to 509,000 in 1929 and then fell to a depression low of 93,000 units in 1933.

<sup>2</sup> Monthly Labor Review, April 1942: Housing and the Increase in Population.

<sup>3</sup> For a detailed discussion of the Defense Housing Survey and the first group of reports issued, see the article in this same issue: New Dwelling Units in Selected Defense Areas, 1940-41.

The recovery in residential construction is even more marked when 1-family dwellings alone are considered. Altogether, the construction of 613,000 new 1-family houses, or 86 percent of the new nonfarm units, was begun in 1941, reaching an all-time high point. Two-family and apartment units declined from 1940 to 1941, and the output of these types in 1941 was less than one-third of the number provided in the most active years of the 1920's. The movements from year to year in number of new dwelling units provided in nonfarm areas since 1920 are shown in table 1.

TABLE 1.—*New Dwelling Units in Nonfarm Areas, 1920 to 1941*<sup>1</sup>

Year	Total units in nonfarm areas	Area <sup>2</sup>		Type of dwelling		
		Urban	Rural nonfarm	1-family	2-family <sup>3</sup>	Multi-family <sup>4</sup>
1920.....	247,000	196,000	51,000	202,000	24,000	21,000
1921.....	449,000	359,000	90,000	316,000	70,000	63,000
1922.....	716,000	574,000	142,000	437,000	146,000	133,000
1923.....	871,000	698,000	173,000	513,000	175,000	183,000
1924.....	893,000	716,000	177,000	534,000	173,000	186,000
1925.....	937,000	752,000	185,000	572,000	157,000	208,000
1926.....	849,000	681,000	168,000	491,000	117,000	241,000
1927.....	810,000	643,000	167,000	454,000	99,000	257,000
1928.....	753,000	594,000	159,000	436,000	78,000	239,000
1929.....	509,000	400,000	109,000	316,000	51,000	142,000
1930.....	330,000	236,000	94,000	227,000	29,000	74,000
1931.....	254,000	174,000	80,000	187,000	22,000	45,000
1932.....	134,000	64,000	70,000	118,000	7,000	9,000
1933.....	93,000	45,000	48,000	76,000	5,000	12,000
1934.....	126,000	49,900	77,000	109,000	5,000	12,000
1935.....	221,000	117,000	104,000	184,000	8,000	29,000
1936.....	319,000	211,000	108,000	250,000	15,000	54,000
1937.....	336,000	218,000	118,000	268,000	17,000	51,000
1938.....	406,000	262,000	144,000	317,000	18,000	71,000
1939.....	515,000	359,000	156,000	399,000	29,000	87,000
1940.....	603,000	397,000	206,000	485,000	37,000	80,000
1941.....	715,000	440,000	275,000	613,000	34,000	68,000

<sup>1</sup> Data for 1920-29 are from National Bureau of Economic Research, data for 1930-41 from Bureau of Labor Statistics. Because the 1930-41 estimates are preliminary and derived by somewhat different techniques than the earlier estimates, caution should be exercised in comparing years in different sections of the series. See Monthly Labor Review, April 1942: Housing and the Increase in Population.

<sup>2</sup> Urban and rural nonfarm classifications for years 1920-29 are based on 1930 Census, for years 1930-41, upon 1940 Census.

<sup>3</sup> Includes 1- and 2-family dwellings with stores.

<sup>4</sup> Includes multifamily dwellings with stores.

### *New Dwellings, 1940 and 1941*

The 715,000 new family dwelling units upon which construction was started in nonfarm areas during 1941 represent an increase of 19 percent over the 603,000 total for the preceding year. Privately financed construction during this same period showed a gain of 17 percent as compared with 31 percent for publicly financed units.

The increase of 26 percent from 1940 to 1941 in number of new 1-family homes was responsible for the gain in total residential construction despite declines of 8 and 14 percent, respectively, in numbers of 2-family and multifamily units. Among privately financed units, the 2-family group showed a gain of 11 percent from 1940 to 1941, and the multifamily group, 3 percent. In publicly financed projects, the number of 1-family units more than doubled, but the 2-family and apartment units in 1941 were only about half as great as in 1940.

The 2-family and multifamily units included in the 1940 and 1941 estimates were, as usual, heavily concentrated in the larger cities. Thus, 47 percent of all 2-family units in nonfarm areas and 70 percent of all multifamily units were in cities of over 100,000 population, although construction of units of all types in these cities accounted for only 29 percent of the nonfarm total for both years. Urban places of less than 100,000 population accounted for 34 percent of the nonfarm total for the 2 years and rural nonfarm areas for the remaining 37 percent. The 1940 and 1941 estimates of new nonfarm dwelling units by population group and type of dwelling are shown in table 2.

TABLE 2.—*New Dwelling Units in Nonfarm Areas, 1940 and 1941, by Population Group and Type of Dwelling*

Area and population group (1940 Census)	Number of new dwelling units							
	All types		1-family		2-family <sup>1</sup>		Multifamily <sup>2</sup>	
	1941	1940	1941	1940	1941	1940	1941	1940
All nonfarm areas.....	715, 200	602, 600	612, 600	485, 700	34, 300	37, 300	68, 300	79, 600
Percent of change, 1940 to 1941.....	+18. 7	-----	+26. 1	-----	-8. 1	-----	-14. 2	-----
Urban (cities).....	439, 600	396, 600	349, 100	293, 600	28, 400	31, 500	62, 100	71, 500
500,000 and over.....	103, 700	100, 000	59, 400	51, 200	8, 700	7, 700	35, 600	41, 100
100,000 to 500,000.....	92, 600	87, 400	73, 300	62, 400	7, 600	10, 100	11, 700	14, 900
50,000 to 100,000.....	42, 300	41, 100	33, 300	32, 500	3, 900	4, 200	5, 100	4, 400
25,000 to 50,000.....	50, 100	45, 300	44, 000	37, 300	2, 400	3, 200	3, 700	4, 800
10,000 to 25,000.....	72, 300	57, 900	65, 700	50, 800	3, 200	3, 500	3, 400	3, 600
5,000 to 10,000.....	45, 100	38, 600	42, 100	35, 100	1, 600	1, 700	1, 400	1, 800
2,500 to 5,000.....	33, 500	26, 300	31, 300	24, 300	1, 000	1, 100	1, 200	900
Rural nonfarm areas.....	275, 600	206, 000	263, 500	192, 100	5, 900	5, 800	6, 200	8, 100

<sup>1</sup> Includes 1- and 2-family dwellings with stores.

<sup>2</sup> Includes multifamily dwellings with stores.

The recent census noted a disproportionate growth in population of smaller cities and rural places as compared with the growth of large urban centers. When the trends in construction of new dwelling units are examined with reference to centers of population of different size, the related tendency towards dispersment of new housing is found to have continued through 1941. Thus, of the new units provided during 1941, 39 percent were in rural nonfarm areas as compared with 34 percent during 1940. No year previous to 1941 had as large a number of new rural nonfarm dwelling units.

Within the urban area, cities of different size classification have not shared proportionately in the increase from 1940 to 1941. Cities of over 25,000 population provided 5 percent more new units than during the previous year as compared with a 23-percent rise in the smaller urban places. These percentage changes are considerably affected by the location of Federally financed housing projects which show an even greater trend than privately financed housing toward location in smaller cities and rural places. For privately financed units alone, cities of over 25,000 population experienced a 10-percent rise in new dwelling units as compared with a 13-percent increase for smaller urban places. The new dwelling units, construction of which was begun during 1940 and 1941, are shown separately by source of funds and population group in table 3.

The largest number of new dwelling units under construction in any one area during 1941 was 137,000 in the East North Central



States. The next largest number, 130,000, was in the South Atlantic States; other areas with more than 100,000 new units were the Pacific section (122,000) and the Middle Atlantic division (119,000). In proportion to the total nonfarm population as shown by the 1940 Census, the rates of construction in the Pacific and South Atlantic States are far ahead of the rates in other areas. During 1940 these same areas had the largest total volumes of new residential work, with the South Atlantic States in the leading position.

TABLE 3.—*New Dwelling Units in Nonfarm Areas, 1940 and 1941, by Population Group and Source of Funds*

Area and population group (1940 Census)	Total units		New dwelling units financed by—			
			Private funds		Public funds	
	1941	1940	1941	1940	1941	1940
All nonfarm areas.....	715, 200	602, 600	619, 460	529, 571	95, 740	73, 029
Percent of change, 1940 to 1941.....	+18. 7		+17. 0		+31. 1	
Urban (cities).....	439, 600	396, 600	369, 483	333, 154	70, 117	63, 446
500,000 and over.....	103, 700	100, 000	88, 993	84, 460	14, 707	15, 540
100,000 to 500,000.....	92, 600	87, 400	72, 483	59, 547	20, 117	27, 853
50,000 to 100,000.....	42, 300	41, 100	35, 750	33, 621	6, 550	7, 479
25,000 to 50,000.....	50, 100	45, 300	41, 848	39, 893	8, 252	5, 407
10,000 to 25,000.....	72, 300	57, 900	60, 329	53, 236	11, 971	4, 664
5,000 to 10,000.....	45, 100	38, 600	40, 766	36, 678	4, 334	1, 922
2,500 to 5,000.....	33, 500	26, 300	29, 314	25, 719	4, 186	581
Rural nonfarm areas.....	275, 600	206, 000	249, 977	196, 417	25, 623	9, 583

Geographic location had considerable influence upon the type of dwelling unit built. In the Middle Atlantic section, which had the highest number of new multifamily units in both 1940 and 1941, this type comprised 34 and 16 percent of the annual nonfarm totals. This is to a great extent explained by the concentration of large cities in the Middle Atlantic area. The South Atlantic and Pacific States also built large numbers of multiple units, this classification accounting for 13 and 12 percent of the respective area totals for 1941. Of interest also is the fact that privately financed apartment construction in these last two areas showed important gains over 1940, whereas in the Middle Atlantic States apartment house construction showed a loss more than large enough to account for the decrease in the United States multifamily totals. In New York City alone, applications filed for apartment units dropped from a total of 19,800 units in 1940 to 13,400 units in 1941. The types of units built in each area during 1940 and 1941 are shown in table 4.

The South Atlantic States received the most Federal assistance in providing housing, because this section includes so many areas with vital war-industry and military and naval concentrations. During 1941 publicly financed housing projects in this area were planned to accommodate 21,680 families, a small increase over the corresponding 19,233 units in 1940. The second largest concentration of publicly financed units in 1941 was in the Middle Atlantic States where 19,519 units were under construction. Other large volumes of public construction in 1941 were the 14,279 units in the East North Central States, 13,658 in the Pacific States, and 10,916 in New England.

In terms of privately financed construction alone, the East North Central and West South Central States showed the largest percentage

gain in 1941 over 1940. The New England and East South Central States were next in order. Table 5 presents the 1940 and 1941 estimates for each geographic area separately for those units privately financed and those in publicly sponsored projects.

TABLE 4.—*New Dwelling Units in Nonfarm Areas, 1940 and 1941, by Geographic Division and Type of Dwelling*

Geographic division	Number of new dwelling units							
	All types		1-family		2-family <sup>1</sup>		Multifamily <sup>2</sup>	
	1941	1940	1941	1940	1941	1940	1941	1940
All divisions.....	715, 200	602, 600	612, 600	485, 700	34, 300	37, 300	68, 300	79, 600
Percent of change, 1940 to 1941.....	+18. 7		+26. 1		-8. 1		-14. 2	
New England.....	39, 200	30, 400	33, 700	24, 000	1, 700	2, 100	3, 800	4, 300
Middle Atlantic.....	118, 600	100, 000	92, 900	60, 800	6, 400	4, 700	19, 300	34, 500
East North Central.....	137, 200	106, 300	125, 900	95, 200	5, 100	7, 200	6, 300	3, 900
West North Central.....	44, 800	39, 000	41, 300	36, 700	1, 500	900	2, 000	1, 400
South Atlantic.....	130, 100	112, 900	106, 700	86, 900	6, 600	7, 600	16, 800	18, 400
East South Central.....	38, 600	33, 800	33, 600	28, 300	3, 700	4, 090	1, 300	1, 500
West South Central.....	63, 100	53, 900	56, 100	45, 400	3, 600	5, 000	3, 400	3, 500
Mountain.....	21, 700	21, 600	19, 400	19, 500	1, 000	800	1, 300	1, 300
Pacific.....	121, 900	104, 700	103, 100	88, 900	4, 700	5, 000	14, 100	10, 800

<sup>1</sup> Includes 1- and 2-family dwellings with stores.

<sup>2</sup> Includes multifamily dwellings with stores.

TABLE 5.—*New Dwelling Units in Nonfarm Areas, 1940 and 1941, by Geographic Division and Source of Funds*

Geographic division	Total units		New dwelling units financed by—			
			Private funds		Public funds	
	1941	1940	1941	1940	1941	1940
All divisions.....	715, 200	602, 600	619, 460	529, 571	95, 740	73, 029
Percent of change, 1940 to 1941.....	+18. 7		+17. 0		+31. 1	
New England.....	39, 200	30, 400	28, 284	24, 039	10, 916	6, 361
Middle Atlantic.....	118, 600	100, 000	99, 081	88, 970	19, 519	11, 030
East North Central.....	137, 200	106, 300	122, 921	95, 005	14, 279	11, 295
West North Central.....	44, 800	39, 000	40, 535	38, 603	4, 265	397
South Atlantic.....	130, 100	112, 900	108, 420	93, 667	21, 680	19, 233
East South Central.....	38, 600	33, 800	34, 461	27, 511	4, 139	6, 289
West South Central.....	63, 100	53, 900	57, 167	44, 251	5, 933	9, 649
Mountain.....	21, 700	21, 600	20, 349	20, 221	1, 351	1, 379
Pacific.....	121, 900	104, 700	108, 242	97, 304	13, 658	7, 396

### Privately Financed War Housing

The development of war industries, causing influxes of workers into particular areas, often brought with it severe housing shortages. To some extent such problems have been met by publicly financed construction but the major share of the housing demand has been left for private builders to supply. The tendency during 1941, noted previously, to favor construction of new housing in smaller cities and rural places rather than in central cities was especially noticeable in these war-production areas. During 1942 this trend, however, may be halted or perhaps even reversed. With the shortage of rubber tires, war workers will find it increasingly more difficult to live away

from the city and their jobs and will need housing within easy reach of the public transportation systems.

In a number of areas the volume of new privately financed construction within the last few years is important enough to warrant individual mention. Thus, in Los Angeles and the surrounding areas more than 85,000 new homes were built in the last 2 years. In the San Francisco section, including Vallejo, more than 31,000 privately financed units went under construction during the 2-year period.

In the Midwest, the tremendous industrial expansion around Detroit was incentive enough for private builders to start construction of 24,000 new units in 1941 and 19,000 in 1940. Along the east coast, the influx of workers into the Federal service at Washington, D. C., has caused housing needs which are only partially met by the 21,000 privately financed units upon which construction started in 1941 and the 15,000 in 1940. The varied industrial interests of northern New Jersey, around Newark and Paterson, likewise were stimulus for erection of 11,000 homes in 1941 and 10,000 in 1940. In New York City applications were filed for 22,900 units during 1941 and 30,700 during 1940 while additional thousands of units were under construction in the New York suburban area.

In view of the shortages of materials and the severe restrictions on nondefense building, the question of the importance of building in nondefense areas is one that will arise very frequently. During 1940, it is estimated, a total of approximately 350,000 new privately financed units were provided in areas of great defense activity.<sup>4</sup> The corresponding total for 1941 is estimated at 450,000 units. This would imply that whereas private construction in war-production areas during 1941 was increasing about 30 percent over 1940, construction in other areas was showing a small loss or at best holding even.

As a step to encourage private building for defense workers, Congress in March 1941 added Title VI to the National Housing Act governing the operations of the Federal Housing Administration. This amendment allowed liberal insurance terms to builders who would provide low-cost housing in specific defense areas so designated by the President at the recommendation of the Defense Housing Coordinator. By the end of 1941 mortgages covering 42,000 homes had been accepted for insurance under Title VI by the Federal Housing Administration.

The greater part of FHA-insured mortgages on new houses was still carried, however, under the provision of Title II with an additional small number under Title I. Under these provisions, 183,000 new homes were accepted for insurance during 1941 as compared with 177,000 during 1940. The Federal Housing Administration estimates that of the new homes thus insured during 1941, 84 percent were located within war-production areas.

The second quarter of 1941 saw more new housing begun than in any other period of 1940 or 1941. Although the number of publicly financed units in this quarter was exceptionally large, reaching a total of 32,258, the privately financed number still was 25 percent above the comparable period of 1940. From the high point in the second quarter of 1941 the number of privately financed units started showed but a small decrease of 4 percent in the third quarter. There was a sharp decline from the third to the fourth quarter, a decline that is for the most part explained by the normal seasonal tendencies at this

<sup>4</sup> These estimates are preliminary and would change upon redefinition of the areas covered.



time of the year. In 1941 this seasonal decline was accentuated by the growing shortages of strategic materials, influencing some builders against starting new construction until the Government's attitude and the supply situation became clarified. However, because of the much higher rate of building during 1941 as compared with 1940, even a 33-percent decline in private building as compared with the previous quarter total kept the fourth quarter of 1941 approximately on the same level as the corresponding period of 1940.

### *Federal Aid for New Housing <sup>5</sup>*

At the beginning of 1940 the sole Federal agency with the function and funds to build nonfarm homes was the United States Housing Authority. Technically, this agency did not itself build houses, but lent money to local housing authorities created under State law for the purpose of eliminating slums and providing housing for low-income families. By the end of 1939 the United States Housing Authority had thus assisted in getting under construction in continental United States 62,990 low-rent units. Late in June 1940, when housing shortages threatened to hinder defense activity, Congress authorized the United States Housing Authority to provide defense housing with its regular funds (Public, No. 671, 76th Cong.). No subsidies to local authorities were to be granted for these projects and the low-income requirements were removed for the duration of the emergency for defense occupants.

By the end of 1940 the United States Housing Authority had started construction upon 5,110 defense homes under the terms of Public Act No. 671. During 1941, 1,234 additional units were started under the terms of this law.<sup>6</sup> However, this was not the full extent of conversion of the United States Housing Authority to war-housing activity. In order to receive priority aid in getting building materials for certain of its remaining slum-clearance projects, the United States Housing Authority certified that workers in war industries would be given preference as occupants of these units. Of the units started in 1941, 15,181 were thus reserved for war workers, and 8,301 of those started in 1940. In addition to the USHA dwelling units designated for war workers under Act 671 and priority commitments, a considerable number of units in slum-clearance projects not so designated are occupied or will be occupied by war workers. In all, United States Housing Authority projects accounted for 23,440 units during 1941 and 50,841 during 1940.

In September of 1940 Congress appropriated \$100,000,000 for defense housing to be built by the War and Navy Departments (Public, No. 781 76th Cong.). A month later in the Lanham Act (Public, No. 849, 76th Cong.), \$140,000,000 was granted to the Federal Works Agency and \$10,000,000 to the Reconstruction Finance Corporation. The Reconstruction Finance Corporation formed the Defense Homes Corporation to use those funds for provision of housing, with additional money to be made available as needed by The RFC Mortgage Company. In April of 1941 the Lanham Act funds were increased by \$150,000,000, and in December \$300,000,000 more was

<sup>5</sup> The housing agencies discussed in this section were reorganized under an Executive order of February 24, 1942, into one organization known as the National Housing Agency. Public housing is treated here as it was organized at the end of 1941.

<sup>6</sup> These totals do not include 1,725 units built by the War and Navy Departments with USHA funds directly turned over to them.

made available to be used for housing under presidential direction. In addition to these grants, \$20,000,000 was provided, to be used for temporary housing, including trailers and dormitories, under the provisions of Public Act No. 9, 77th Congress. The function of determining need for defense housing in particular areas was delegated by the President to the Division of Defense Housing Coordination of the Office for Emergency Management.

The Federal Works Administrator had the power to designate other agencies to use the defense-housing money under his control. All agencies within the Federal Works Agency or acting for the Administrator had under construction contract or had completed a total of 75,148 units by the end of 1941. Of this number, the Public Buildings Administration and the United States Housing Authority were in charge of 30,172 and 21,798<sup>7</sup> units, respectively. The Division of Defense Housing and the Mutual Ownership Division, newly created units in the Office of the Federal Works Administrator, accounted for an additional 18,991 units.

The Navy Department with the funds granted directly to them built 12,165 homes during 1940 and 668 more in 1941. The War Department, on the other hand, turned the money granted to it over to the Public Buildings Administration, and units thus built are included in the totals previously cited. The Defense Homes Corporation started construction on 2,981 homes during 1941. These generally were more expensive than the other defense units and were designed for occupancy by supervisory employees. Additional details on the number of publicly financed dwelling units for which contracts were awarded in 1940 and 1941, is given in table 6.

The discussion of publicly financed housing has thus far been concerned with permanent type units within continental United States. Demountable units have been included in the totals presented but portable units and trailers were omitted. During 1941, 766 portable

TABLE 6.—Quarterly Summary of New Nonfarm Dwelling Units, 1940 and 1941, and Publicly Financed Projects, by Constructing Agency<sup>1</sup>

Period	Total units in nonfarm areas	Units privately financed	Units publicly financed, constructed by—				
			All public agencies	USHA (all slum-clearance funds) <sup>2</sup>	FWA (and agents) <sup>3</sup>	Other defense agencies	Other non-defense agencies <sup>4</sup>
Total, 1940.....	602,600	529,571	73,029	50,841	6,510	12,165	3,513
First quarter.....	108,000	98,689	9,911	9,911	0	0	0
Second quarter.....	164,300	153,299	11,001	11,001	0	0	0
Third quarter.....	171,600	153,862	17,738	16,810	0	50	878
Fourth quarter.....	158,100	123,721	34,379	13,119	6,510	12,115	2,635
Total, 1941.....	715,200	619,460	95,740	23,440	68,638	3,662	0
First quarter.....	145,100	122,803	22,297	8,804	11,061	2,432	0
Second quarter.....	223,100	190,842	32,258	6,247	25,018	993	0
Third quarter.....	211,400	183,073	28,327	3,764	24,541	22	0
Fourth quarter.....	135,600	122,742	12,858	4,625	8,018	215	0

<sup>1</sup> Does not include portable or trailer units or dwelling units outside continental United States. Publicly financed units are, with but few exceptions, tabulated in month of construction contract award.

<sup>2</sup> Includes 5,110 units in 1940 and 1,234 in 1941 designated for defense under Public, No. 671 but omits projects constructed with funds turned over by USHA to War and Navy Departments.

<sup>3</sup> Includes projects constructed by Public Buildings Administration for War Department under Public, No. 781.

<sup>4</sup> New York City Housing Authority projects constructed without financial assistance of the USHA.

<sup>7</sup> This does not include 2 completed slum-clearance projects with 1,573 units, purchased from local authorities for defense use.

dwelling units were provided in defense areas by the Farm Security Administration with funds provided under Public Act No. 9, 77th Congress. Under the terms of the same law, the Farm Security Administration in 1941 provided 4,859 trailer units, and dormitories to accommodate 7,390 single persons. Dormitories under construction by other agencies were to house an additional group of 1,752 single persons.

### Estimated Permit Valuations

The permit valuation of the 715,000 new units upon which construction was started in nonfarm areas during 1941 is estimated at \$2,502,818,000. This includes \$2,180,805,000 for privately financed units and \$322,013,000 for those in public projects. Of the total valuation, \$2,219,094,000 (89 percent) was for 1-family dwellings, \$86,526,000 (3 percent) for 2-family houses, and \$197,198,000 (8 percent) for apartments. During 1940 the 603,000 new nonfarm units had an estimated permit valuation of \$2,021,363,000 of which \$227,289,000 was for public projects.

Because of the nature of the cost estimates given by builders when they apply for permits, these permit valuations commonly understate actual costs. The Bureau of Labor Statistics has been studying the degree of this understatement and has released preliminary results of this study, which indicate that costs of 1-family houses average 15.5 percent more than the valuations entered on the permit records. Further results of this study may modify this conclusion and may also show a somewhat different relationship between costs and permit valuation of 2-family and apartment buildings. In the absence of more complete data, permit valuations of privately financed residential construction should be increased 15.5 percent to yield estimated construction costs. Contract awards for projects publicly financed are reported directly to the Bureau. Since the latter approximate construction costs, no adjustment of public totals is necessary. With these considerations in mind, construction of the 715,000 new units in 1941 and 603,000 in 1940 is found to involve expenditures of approximately \$2,840,000,000 and \$2,300,000,000, respectively.

The estimated permit valuations during 1940 and 1941 of new privately financed dwellings and the contract award totals for publicly financed projects are shown by geographic division in table 7.

TABLE 7.—*Permit Valuation of New Housekeeping Dwellings in Nonfarm Areas, 1940 and 1941, by Geographic Division and Source of Funds*

Geographic division	Estimated permit valuation (in thousands of dollars)					
	Total		Private funds		Public funds	
	1941	1940	1941	1940	1941	1940
All divisions.....	2,502,818	2,021,363	2,180,805	1,794,074	322,013	227,289
New England.....	163,874	124,167	125,402	102,666	38,472	21,501
Middle Atlantic.....	489,836	394,714	417,473	361,436	72,363	33,278
East North Central.....	569,933	430,837	520,098	391,769	49,835	39,068
West North Central.....	151,293	124,223	136,466	122,906	14,827	1,317
South Atlantic.....	389,333	330,667	320,500	274,705	68,833	55,962
East South Central.....	91,994	76,113	79,549	58,441	12,445	17,672
West South Central.....	179,053	150,695	160,939	122,746	18,114	27,949
Mountain.....	64,165	60,325	59,994	56,503	4,171	3,822
Pacific.....	403,337	329,622	360,384	302,902	42,953	26,720



# NEW DWELLING UNITS IN SELECTED DEFENSE AREAS, 1940 AND 1941

## Summary

OVER 70 percent of the total nonfarm residential construction in 1941 was in and around areas of defense activities. The number of residential dwelling units provided in 93 selected defense areas in 1941 represented over 31 percent of the total units provided in the nonfarm areas of the country. In 1941 total residential construction in these 93 areas increased 41 percent over 1940. Public construction increased 54 percent while private construction rose 38 percent over the previous year. In 1941 public housing accounted for 23 percent of the total dwelling units provided in the 93 areas, as compared with 21 percent in 1940.

The permit valuation distribution of the privately financed dwelling units in these 93 defense areas was lower in the last quarter of 1941 than in 1940 or the first 9 months of 1941, primarily as a result of priority restrictions which operated against the building of higher-priced dwellings and in favor of the lower-priced ones. The distribution of permit valuations by geographic areas revealed marked differences. The proportion of dwelling units valued at more than \$4,000 varied from 12.8 percent in the East South Central States to 60.3 percent in the East North Central States in 1940 and from 13.7 percent in the East South Central States to 62.1 percent in the New England area in 1941.

The above findings are based upon information obtained in a national survey of defense housing and on data of the Bureau of Labor Statistics. Thus, the volume of privately financed residential construction in 1940 and 1941 is based upon the data collected during the Defense Housing Survey.<sup>1</sup> The public residential data were estimated by the Bureau of Labor Statistics from reports of the various Federal agencies engaged in the public housing program. In order to maintain comparability between the public and private data, trailers, portable housing units, and dormitory units built from public funds have been excluded from the public totals.

The total population of the 93 areas,<sup>2</sup> as of April 1940, was approximately 25,000,000. Individual areas varied in size from East Greenwich, R. I., with a population of 8,466, to Philadelphia, Pa., with a population of almost 2,300,000.

### New England (2,360,934):

Bath, Maine.  
Bridgeport, Conn.  
East Greenwich, R. I.  
Greenfield, Mass.  
Hartford, Conn.  
Lynn, Mass.  
Meriden, Conn.  
Middletown, Conn.  
New Britain, Conn.  
New Haven, Conn.  
New London, Conn.  
Newport, R. I.  
Portland, Maine.

### New England—Continued.

Quincy, Mass.  
Springfield, Mass.  
Springfield, Vt.  
Waterbury, Conn.  
Middle Atlantic (10,054,281):  
Albany, N. Y.  
Aliquippa, Pa.  
Allentown, Pa.  
Berwick, Pa.  
Buffalo, N. Y.  
Camden, N. J.  
Chester, Pa.  
Coatesville, Pa.

### Middle Atlantic—Continued.

Corry, Pa.  
Dover, N. J.  
Ellwood City, Pa.  
Elmira, N. Y.  
Erie, Pa.  
Harrisburg, Pa.  
Jersey City, N. J.  
New Brunswick, N. J.  
Newark, N. J.  
Paterson, N. J.  
Penns Grove, N. J.  
Philadelphia, Pa.  
Phillipsburg, N. J.

<sup>1</sup> A WPA project sponsored and conducted by the Bureau of Labor Statistics in cooperation with the Division of Defense Housing Coordination, Office for Emergency Management (now part of the National Housing Agency).

<sup>2</sup> The areas covered in each geographical division are shown below. Population figures for each division are shown in parentheses.

## Middle Atlantic—Continued.

Pittsburgh, Pa.  
 Pottstown, Pa.  
 Schenectady, N. Y.  
 Sidney, N. Y.  
 Syracuse, N. Y.  
 Titusville, Pa.  
 Utica, N. Y.  
 Williamsport, Pa.  
 East North Central (4,836,003):  
 Akron, Ohio.  
 Ann Arbor, Mich.  
 Cleveland, Ohio.  
 Detroit, Mich.  
 Ft. Wayne, Ind.  
 La Porte, Ind.  
 Manitowoc, Wis.  
 Midland, Mich.  
 Pontiac, Mich.  
 Saginaw, Mich.  
 Sandusky, Ohio.  
 South Bend, Ind.

## East North Central—Continued.

Warren, Ohio.  
 Youngstown, Ohio.  
 West North Central (445,782):  
 Burlington, Iowa.  
 Omaha, Nebr.  
 Wichita, Kans.  
 South Atlantic (2,278,628):  
 Annapolis, Md.  
 Baltimore, Md.  
 Charleston, S. C.  
 Columbus, Ga.  
 Jacksonville, Fla.  
 Macon, Ga.  
 Morgantown, W. Va.  
 Newport News, Va.  
 Norfolk, Va.  
 Pensacola, Fla.  
 Savannah, Ga.  
 Tampa, Fla.  
 Wilmington, N. C.

## East South Central (1,306,905):

Birmingham, Ala.  
 Florence, Ala.  
 Gadsden, Ala.  
 Jackson, Tenn.  
 Memphis, Tenn.  
 Mobile, Ala.  
 Nashville, Tenn.  
 Pascagoula, Miss.  
 West South Central (1,614,520):  
 Dallas, Tex.  
 Fort Worth, Tex.  
 Houston, Tex.  
 San Antonio, Tex.  
 Tulsa, Okla.  
 Pacific (2,068,157):  
 San Francisco, Calif.  
 Seattle, Wash.  
 Tacoma, Wash.  
 Vallejo, Calif.

*Number of Dwelling Units Provided in 93 Defense Areas*

Table 1 presents the number of dwelling units provided in the 93 defense areas in 1940 and 1941 by 3-month periods and by geographic division. New dwelling units started in 1941 from both public and private funds totaled almost 225,000 units, an increase of approximately 41 percent over the number started in 1940. Dwelling units provided from private funds in 1941 increased approximately 38 percent over the previous year, while publicly financed units increased 54 percent. New housing accommodations started in the first three quarters of 1941 ran considerably ahead of those started in the corresponding quarters of 1940. In the final quarter of 1941, however, the number of units put under construction was slightly below the number provided in the final quarter of 1940. This was due entirely to the sharp decline in the number of public residential units put under contract in the final quarter of 1941.

TABLE 1.—*New Dwelling Units Provided in 93 Defense Areas, 1940 and 1941, by Quarter and Geographic Division*

Period	New England	Middle Atlantic <sup>1</sup>	East North Central	West North Central <sup>1</sup>	South Atlantic	East South Central	West South Central	Pacific	Total, private units	Total, public units <sup>2</sup>	Grand total
1940.....	9,518	29,366	30,498	1,702	14,989	6,043	13,705	19,692	125,513	33,317	158,830
First quarter....	967	4,694	4,633	243	2,834	1,151	3,319	4,205	22,046	3,946	25,992
Second quarter....	2,996	8,629	9,085	436	4,091	1,622	3,700	5,419	35,978	5,698	41,676
Third quarter....	3,040	8,464	9,648	557	4,327	1,760	3,756	5,390	36,942	9,969	46,911
Fourth quarter....	2,515	7,579	7,132	466	3,737	1,510	2,930	4,678	30,547	13,704	44,251
1941.....	11,832	40,114	40,284	3,770	23,427	10,557	17,012	26,269	173,265	51,405	224,670
First quarter....	1,567	6,544	7,667	472	4,949	2,282	3,800	5,046	32,327	9,973	42,300
Second quarter....	3,744	12,785	13,325	1,028	6,947	2,836	4,402	6,719	51,786	17,160	68,946
Third quarter....	3,915	12,702	12,790	1,450	7,260	3,023	4,575	6,569	52,254	17,259	69,513
Fourth quarter....	2,606	8,083	6,502	820	4,271	2,416	4,235	7,935	36,868	7,013	43,881

<sup>1</sup> The data for Pittsburgh, Pennsylvania, in the Middle Atlantic Division and for Wichita, Kansas, in the West North Central Division, were estimated in 1940 on the basis of monthly building permit reports filed with the Bureau of Labor Statistics.

<sup>2</sup> The public totals do not include trailers, portable units, or dormitory units.

In 1940 public units accounted for 21 percent of the total housing provided in the 93 defense areas, while in 1941 the proportion of publicly financed units had increased to 23 percent. In 1940 although the 13 defense areas in the South Atlantic States had less than 10 percent of the total population of the 93 areas, they had approximately

one-third of the publicly financed dwellings and 11 percent of the privately financed units. Most of the public construction in this region in 1940 was in the shipbuilding areas around Norfolk, Portsmouth, and Newport News, Va.; and in Baltimore, Md.

In 1941 public residential construction was distributed more in accordance with population. The defense areas in the Middle Atlantic, New England, and Pacific States showed notable gains over 1940. The 29 defense areas in the Middle Atlantic States, with 40 percent of the population of the 93 defense areas, received approximately one-third of the residential units provided.

### *Comparison With Total Nonfarm Construction*

The increasing extent to which residential construction was concentrated in the defense centers is shown in table 2. In the first quarter of 1940 construction in the 93 areas represented 24 percent of the nonfarm total. This was about normal since the corresponding percentage for the population covered was approximately 24 percent. The proportion of residential construction in the 93 defense areas to total nonfarm residential construction rose steadily in 1940 and 1941 until it reached the level of about one-third in the last half of 1941. The same trend is shown by the comparison of the ratio of residential construction per 10,000 population. In the first quarter of 1940 dwelling units provided per 10,000 population was 10.7 for the nonfarm areas and 10.4 for the defense areas. In the next two quarters both the nonfarm and the defense ratios showed increases, but the latter increased much more rapidly. The highest rate for the 93 defense areas was in the third quarter of 1941 when almost 28 dwelling units per 10,000 population were provided.

It should be kept in mind that the total nonfarm estimates include the 93 defense areas, as well as others that could be classified as centers of defense activity. Residential construction in nondefense areas of the country probably showed much smaller gains in 1940 and 1941 than the comparison in table 2 indicates. While total residential construction in the nonfarm areas increased almost 19 percent in 1941 over 1940, the nonfarm increase was only a little more than 10 percent when the units built in the 93 defense areas were excluded.

TABLE 2.—*Number of New Dwelling Units in Nonfarm Areas and in 93 Defense Areas, 1940 and 1941, by Quarters*

Period	Number of dwelling units		93 defense areas as percent of total nonfarm	Dwelling units per 10,000 population	
	Total nonfarm	93 defense areas		Total nonfarm	93 defense areas
1940.....	602,600	158,830	26.4	59.4	63.6
First quarter.....	108,600	25,992	23.9	10.7	10.4
Second quarter.....	164,300	41,676	25.4	16.2	16.7
Third quarter.....	171,600	46,911	27.3	16.9	18.8
Fourth quarter.....	158,100	44,251	28.0	15.6	17.7
1941.....	715,200	224,670	31.4	70.5	90.1
First quarter.....	145,100	42,300	29.2	14.3	17.0
Second quarter.....	223,100	68,946	30.9	22.0	27.6
Third quarter.....	211,400	69,543	32.9	20.8	27.9
Fourth quarter.....	135,600	43,881	32.4	13.4	17.6



*Effect of Priorities on Permit Valuation Distribution*

Table 3 shows the number and percentage distribution by permit valuation groups for privately financed residential units for 1940 and for selected periods in 1941. The permit valuations were obtained from the permit building applications and an equivalent cost estimate was used for the places where permits were not issued. It has been found that such valuations are usually about 15 percent below actual construction costs and some 40 percent below selling price. Adjustments must therefore be made in permit valuations if an actual cost or a selling price figure is desired.

An examination of the percentage distribution by valuation groups reveals a downward movement in permit valuations in the last quarter of 1941. The distribution for 1940 showed a fairly normal pattern with the modal valuation group being the \$3,000 to \$4,000 range. Approximately 45 percent of the units provided in 1940 had permit valuations in excess of \$4,000 and almost 49 percent of the units were in the \$1,000 to \$4,000 permit valuation groups.

TABLE 3.—*Percentage Distribution of Privately Financed Dwellings in 93 Defense Areas, by Permit Valuation, 1940 and 1941*

Permit valuation group	1940: Entire year		1941: January-June		1941: July-September		1941: October-December	
	Num-ber of units	Per-cent of total	Num-ber of units	Per-cent of total	Num-ber of units	Per-cent of total	Num-ber of units	Per-cent of total
Under \$500.....	3,544	2.7	2,179	2.6	1,356	2.6	1,182	3.2
\$500-\$999.....	4,702	3.8	3,006	3.6	1,954	3.7	1,440	3.9
\$1,000-\$1,999.....	10,389	8.3	6,824	8.1	4,600	8.8	2,593	7.4
\$2,000-\$2,999.....	20,142	16.0	12,767	15.2	7,978	15.3	5,202	14.1
\$3,000-\$3,999.....	30,357	24.2	21,602	25.7	13,229	25.3	11,723	31.8
\$4,000-\$4,999.....	25,942	20.7	17,460	20.7	10,635	20.3	7,201	19.5
\$5,000-\$5,999.....	16,032	12.8	9,867	11.7	6,100	11.7	3,812	10.4
\$6,000 and over.....	14,405	11.5	10,408	12.4	6,432	12.3	3,715	10.1
Total.....	125,513	100.0	84,113	100.0	52,284	100.0	36,868	100.0

A similar distribution prevailed in the first 9 months of 1941. The proportion of units in the modal group, in the \$4,000 and over groups, and in the \$1,000 to \$4,000 permit valuation groups remained approximately the same. However, in the last quarter of 1941, there was a definite decrease in the proportion of higher priced dwelling units and more marked concentration of units in the \$3,000 to \$4,000 group. Only 40 percent of the units provided in the final quarter of 1941 were in the \$4,000 and over groups, while the proportion in the \$3,000 to \$4,000 valuation group had increased from approximately 25 percent to 32 percent. Partial data for January and February 1942 indicate a continuation of the downward trend in the permit valuation distribution.

The decline in permit valuation in defense areas is due in large measure to the establishment in October 1941 of a cost ceiling under which priority assistance would be granted to privately-owned defense housing. To qualify for priority assistance in obtaining building materials, the market price of the family unit could not exceed \$6,000 or if for rent, the shelter rent could not exceed \$50 a month. This priority order definitely encouraged the construction of dwelling units selling for \$6,000 or less. While this order had some effect on the cost distribution in the last quarter of 1941, the full effect of

this order was probably not felt until the first quarter of 1942. In April 1942, the War Production Board placed more stringent limitations on residential construction which will probably eliminate for the duration the construction of privately-owned dwelling units selling in excess of \$6,000.

### Permit Valuation Distribution by Geographic Division

The distribution of permit valuation by geographic areas in 1940 and 1941 shown in table 4 reveals marked differences in the distribution for defense areas located in various parts of the United States. The defense areas located in the New England, Middle Atlantic, and East North Central States showed a large proportion of the total number of dwelling units in the three highest permit valuation groups—from \$4,000 to \$6,000 and over. The defense areas in the Middle Atlantic States had 54 percent of the total number of units provided in 1940 in these three groups, the New England areas 59.7 percent and the East North Central over 60 percent. In 1941 an even larger percentage of the total units provided in these three regions were in the \$4,000 and over permit valuation groups—the percentage distribution varying from 55 to 62 percent.

The East South Central, South Atlantic, and West North Central States showed the smallest percentage of dwelling units in the permit valuation groups over \$4,000, varying from 12.8 for the East South Central States to 22 percent for the South Atlantic and West North Central States in 1940, and from 13.7 to 20.5 percent in 1941. The four areas in the Pacific division showed an unusually large concentration of units in the \$3,000 to \$4,000 cost group—35 percent in 1940 and 42 percent in 1941.

TABLE 4.—Percentage Distribution of Privately Financed Dwellings, in 93 Defense Areas, by Permit Valuation Groups and Geographic Division, 1940 and 1941

Permit valuation group	New England		Middle Atlantic		East North Central		West North Central		South Atlantic	
	1940	1941	1940	1941	1940	1941	1940	1941	1940	1941
Under \$500.....	1.0	1.4	0.7	0.4	1.8	1.7	2.0	3.5	3.5	3.9
\$500-\$999.....	1.3	1.5	1.1	1.2	3.0	3.6	1.7	1.8	5.6	4.8
\$1,000-\$1,999.....	5.2	3.8	4.7	3.9	6.4	8.0	20.9	22.8	11.3	11.6
\$2,000-\$2,999.....	10.9	9.6	13.3	11.5	10.2	8.2	27.8	28.2	30.7	27.2
\$3,000-\$3,999.....	21.9	21.6	26.2	27.9	18.3	18.6	24.4	25.0	27.0	32.0
\$4,000-\$4,999.....	28.2	29.4	25.0	25.1	21.3	21.8	14.2	11.0	12.7	12.4
\$5,000-\$5,999.....	16.3	16.7	14.1	14.5	22.4	18.7	4.8	3.8	4.3	3.7
\$6,000 and over.....	15.2	16.0	14.9	15.5	16.6	19.4	4.2	3.9	4.9	4.4
Number of units.....	9,518	11,832	29,366	40,114	30,498	40,284	1,702	3,770	14,989	23,427

Permit valuation group	East South Central		West South Central		Pacific		Total 93 areas	
	1940	1941	1940	1941	1940	1941	1940	1941
Under \$500.....	13.4	12.9	8.1	5.8	1.2	1.2	2.7	2.7
\$500-\$999.....	14.3	14.1	8.6	6.9	2.1	1.7	3.8	3.7
\$1,000-\$1,999.....	20.9	18.4	16.7	13.0	4.7	4.0	8.3	8.1
\$2,000-\$2,999.....	24.1	23.2	20.7	24.6	13.8	10.8	16.0	15.0
\$3,000-\$3,999.....	14.5	17.7	20.4	23.6	34.9	41.8	24.2	26.9
\$4,000-\$4,999.....	7.2	6.5	11.1	12.5	26.9	25.9	20.7	20.3
\$5,000-\$5,999.....	2.5	2.6	6.2	5.8	9.2	8.3	12.8	11.4
\$6,000 and over.....	3.1	4.6	8.2	7.8	7.2	6.3	11.5	11.9
Number of units.....	6,043	10,557	13,705	17,012	19,692	26,269	125,513	173,265

# Health and Industrial Hygiene

## BRITISH HEALTH TREND DURING THE WAR

THE trend of birth and death rates in England and Wales during the first 2 years of the war is shown in the report of the British Registrar General for the third quarter of 1941.<sup>1</sup> There have been extensive movements of population during the war, with progressive changes in age constitution, but the average total population has not changed enough to invalidate the provisional use of the mid-1939 estimate as a basis for the wartime rates. Violent deaths are excluded from the national death rates for the war period in the report, and therefore the total death rates given in the quarterly returns are considered to give a fairly good index of the general health position of the country. In 1941, the returns for each quarter contained a new table showing, by sex, the total deaths registered since 1938 from 36 different causes selected as being of special interest in time of war. In 1940 two important changes were made in the classification of deaths by cause. The new International List of Causes of Death as revised in 1938 was substituted for the previous revision used from 1931 to 1939, and in cases where more than one cause was shown on the death certificate the opinion of the physician as to the principal cause was accepted, instead of following fixed rules as to precedence. Figures for 1938 and 1939 were corrected in accordance with both of these changes.

Severe winters and war conditions, which hastened the death of many old persons and chronic invalids, influenced the rates in the first quarters of 1940 and 1941. There was little variation in the rate for the second quarters up to 1941, when there was some increase which was distributed over a wide range of chronic diseases and was probably due, it is said, to the effect of war strain which turned the scale between recovery and death for a certain proportion of sick persons. The rate for all causes in the third quarter of 1941, a period in which the war tempo was considerably relieved, was unusually low.

The accompanying table shows the number of deaths per 1,000 living persons, by quarters, for the years 1936 to 1941.

*Death Rates in England and Wales From all Causes Other Than Violence<sup>1</sup>*

Quarter year	Death rates per 1,000 living					
	1936	1937	1938	1939	1940 <sup>2</sup>	1941 <sup>2</sup>
First.....	14.6	15.6	13.0	14.5	19.2	15.9
Second.....	11.2	11.0	11.1	11.1	11.0	11.5
Third.....	9.2	9.1	9.4	9.3	9.3	8.9
Fourth.....	11.4	11.8	10.9	11.0	11.5	—

<sup>1</sup> Causes classed under "violence" comprise suicide, homicide, accidental causes including poisoning and operations of war.

<sup>2</sup> Provisional rates based on mid-1939 population.

<sup>3</sup> The Lancet (London), February 14, 1942: Vital Statistics of the Second Year of the War.



There was a decided increase in deaths from pulmonary tuberculosis during the 2-year war period, the number of deaths among males rising from 12,724 in the year from July 1938 to June 1939, to 13,560 in 1939-40, and 14,068 in 1940-41. The corresponding figures for females were 8,983, 9,447, and 9,774. The increase in the first year over the 1938-39 figures amounted to about 6 percent and in the second year to almost 10 percent. The increase in the number of deaths from other forms of tuberculosis over the number in 1938-39 amounted to 2.4 percent in 1939-40 and to 17.6 percent in the second year. Most of the recent increase was due to tuberculous meningitis, which was especially prevalent among children. Deaths from this cause among children under 10 years of age numbered 1,001 in the calendar year 1939, but in the first three-quarters of 1941 alone they numbered 1,233.

The number of deaths from cerebrospinal fever, which totaled 533 from mid-1938 to mid-1939, increased to 2,283 in the 1940-41 period.

Of the infectious diseases of childhood, deaths from both diphtheria and whooping cough increased considerably in the year beginning in mid-1940 and there was also a large increase in deaths from measles in 1940-41. Treatment with sulfonamide resulted in a remarkable decline in the deaths from streptococcal and pyogenic infections, but there was a slight increase in the number of pneumonia deaths in spite of the new therapy. The conditions imposed by air raids were thought to have affected cases of bronchitis and pneumonia adversely, thus counteracting the beneficial effects of the treatment which might otherwise have been expected. Deaths from peptic ulcer were 28 percent higher for men and 22 percent higher for women in the second year of the war than in the 1938-39 period. Among other nonviolent causes of death which showed noteworthy increases since the beginning of the war are paratyphoid fever, dysentery, diarrhea and enteritis, schizophrenia, epilepsy, pleurisy, hernia, congenital hydrocephalus and pyloric stenosis (males), cancer of various sites, diseases of the prostate and rheumatoid arthritis (males), and pernicious anemia. There was little change in the number of deaths from diabetes in the 2 years, but exophthalmic goiter deaths declined greatly in the second year of the war. The number of suicides, especially among women, declined during the 2 years.

A considerable improvement in the number of deaths due to diseases of pregnancy and childbirth occurred in the 2 years, maternal deaths declining by 20 percent, deaths of infants from injury at birth, 13 percent, and deaths from prematurity, 10 percent.

There was a sudden drop in the birth rate in the second quarter of 1940, amounting to 7.4 percent, as compared with 1939. In the next two quarters it was less pronounced, but in the second quarter of 1941 the drop as compared with 1939 amounted to 10.4 percent, and in the third quarter of the year it was 8.5 percent.

# Labor Laws and Court Decisions

## COURT DECISIONS OF INTEREST TO LABOR<sup>1</sup>

### *Strike Aboard Ship Held Mutiny*

A SIT-DOWN strike by seamen aboard a ship is mutiny, even though the vessel is in port, according to a 5-to-4 decision of the United States Supreme Court.<sup>2</sup> The majority opinion, written by Mr. Justice Byrnes, held that in view of the fact that sailors have signed the shipping articles and promised to obey the captain, a strike is mutiny not only on the high seas but in any waters within the admiralty and maritime jurisdiction of the United States. Hence an order of the National Labor Relations Board, directing the reinstatement of five seamen who had engaged in a strike, was held to be invalid except as to that portion requiring the employer to bargain with the union.

The National Maritime Union had been certified by the National Labor Relations Board as the representative of the employees for the purpose of collective bargaining. In spite of this certification, the employer refused to bargain with the union. This resulted in a sit-down strike by the union members while the ship was docked in Houston, Tex. The strikers refused to provide steam to operate machinery for loading cargo, but engaged in no violence and did not interfere with the officers of the ship or the nonstriking members of the crew who proceeded with the loading of the cargo. The National Labor Relations Board and the union contended that the strike constituted no danger to the vessel and that the ship was safe while tied up at dock.

The Supreme Court, however, pointed out that a ship moored to a dock is not necessarily "safe" if the crew refuses to tend it, as the strikers did at Houston. The strategy of discipline, the Court further said, is not simple, and the maintenance of authority hinges upon a delicate complex of human factors. Thus, in enacting the mutiny laws, "Congress may very sensibly have concluded that a master whose orders are subject to a crew's veto in port cannot enforce them at sea." The mutiny statute covers acts not only on the high seas but in "any other waters within the admiralty and maritime jurisdiction of the United States," and the Court viewed this language as a "plain Congressional mandate" that the act applies to vessels in port. Finally, the Court declared that the Board, in effectuating the purposes of the National Labor Relations Act, could not "wholly ignore other and equally important Congressional objectives."

In a dissenting opinion, Mr. Justice Reed declared that the Board did have discretion to order the reinstatement of the seamen, and pointed out that they were discharged "not for disobeying orders but

<sup>1</sup> Prepared in cooperation with the Division of Labor Standards, U. S. Department of Labor.

<sup>2</sup> *Southern Steamship Co. v. National Labor Relations Board* (62 Sup. Ct. 886).

for striking, for peacefully, albeit unlawfully, resorting to self-help in retaliation against denial of their rights." The justice objected further to "an iron rule that a discharge of a striker by his employer for some particular, unlawful conduct in furtherance of a strike is sufficient to bar his reinstatement as a matter of law." Justices Black, Douglas, and Murphy joined in the dissent.

### *State Prohibition of Mass Picketing Upheld*

The Supreme Court has ruled in a recent decision that a State may properly forbid participation in mass picketing as an unfair labor practice.<sup>3</sup> The decision held that "mere enactment" of the National Labor Relations Act would not prevent Wisconsin from dealing with industrial disputes through its Employment Peace Act.

This case resulted from an order of the Wisconsin Employment Relations Board finding a union guilty of unfair labor practices in mass picketing accompanied by threats and assaults. The order prohibited mass picketing near the Milwaukee plant of the employer, obstructing entrance or egress, threatening or intimidating nonstrikers, and picketing workers' homes. The union challenged the entire Wisconsin act as repugnant to the terms of the National Labor Relations Act, although the only issue involved before the Supreme Court was the validity of the order of the State board. The Court's decision, however, was confined to the precise facts of the case and expressed no opinion as to the validity of the statute as a whole.

In deciding the case, the Court asserted that States have the power to regulate picketing under their police power. That power was held to be limited only when it comes into conflict with the rights guaranteed by the Constitution or with the status of employees and their collective-bargaining rights under the National Labor Relations Act or other Federal laws. "It has not been shown," the Court said, "that any employee was deprived of rights protected or granted by the Federal act or that the status of any of them under the Federal act was impaired."

### *Assistance to Union Renders Subsequent Closed-Shop Contract Invalid*

By a majority of 8 to 1, the United States Supreme Court held that assistance to a union, even though nationally affiliated, renders a subsequent closed-shop agreement unlawful under the National Labor Relations Act.<sup>4</sup> The assistance rendered included closing down the plant until the organization with which the agreement was later made could "get its lines in order." "Assistance to a union by a shut-down," the Court said, "like any other employer assistance, is forbidden."

In holding that the assistance given the union in this case was unlawful, the Court rejected the contention that "freedom to organize must necessarily be qualified after uncoerced employees obtain validly chosen majority representatives." The Court declared that to permit employer interference prior to the execution of a closed-shop contract, as soon as a bare majority of employees had properly selected their representatives, would go far to restore the type of company-union coordination which the act forbids.

<sup>3</sup> *Allen-Bradley Local No. 1111 v. Wisconsin Employment Relations Board* (62 Sup. Ct. 820).

<sup>4</sup> *National Labor Relations Board v. Electric Vacuum Cleaner Co.* (62 Sup. Ct. 846).



### *Prohibition of Picketing Under Texas Antitrust Law*

In a 5-to-4 ruling, the Supreme Court held that the State of Texas was constitutionally able to bar even one-man peaceful picketing when it was not related directly to the labor dispute.<sup>5</sup> In this case, the State courts had issued an injunction against the picketing of a cafe in Houston by the Carpenters and Joiners Union. The picketing had resulted from the fact that the owner of the cafe had engaged a contractor employing nonunion labor to construct a building a mile and a half away. In front of the cafe, which employed union labor and had no controversy, a picket carried a placard stating that the contractor was unfair to the union. The Texas courts held that the picketing violated the State antitrust law and was coercive to an individual in the lawful conduct of his business. The union argued that the injunction infringed upon the rights of free speech by preventing communication of its position to the public.

In sustaining the Texas courts, Mr. Justice Frankfurter declared that recognition of peaceful picketing as an exercise of free speech does not imply that the States must be without power to confine the sphere of communication to that directly related to the dispute. "Restriction of picketing to the area of the industry within which a labor dispute arises," the Court said, "leaves open to the disputants other traditional modes of communication."

There were two dissenting opinions, one by Justices Black, Douglas, and Murphy, and the other by Mr. Justice Reed. In general, the dissenting jurists held that peaceful and truthful placards of the picket were a means of communication protected by the free-speech guaranties of the Constitution.

### *Picketing Against System of Peddling Upheld*

In another decision involving picketing, the Supreme Court upheld the right of unions to picket against a system involving the peddling of bakery products in New York City.<sup>6</sup> The peddlers bought from baking companies and sold to retailers, keeping for themselves the difference between cost and sales price. A labor union, desiring collective-bargaining agreements for drivers, objected to the system of peddlers, whose number in 5 years had increased from 50 to about 500. Gradually the union drivers were being discharged by the baking companies unless they acted as peddlers and provided their own trucks. Finally the union tried to force the peddlers to work only 6 days a week and hire an unemployed union man at \$9 for the seventh. Failing in this the union resorted to having two pickets walk with placards before certain bakeries selling to the peddlers.

In this case, the New York Court of Appeals had ruled that the controversy was not a labor dispute within the meaning of the State anti-injunction law and therefore might be enjoined. The Supreme Court ruled, however, that picketing is protected by the free-speech guaranty of the Constitution, even though not part of a labor dispute. In this case, the Court pointed out, there was no way for the drivers to express themselves otherwise than by the methods they used, and "it is not indicated that there was an actual or threatened abuse of the right of free speech through the use of excessive picketing."

<sup>5</sup> *Carpenters and Joiners Union of America, Local 213, v. Ritter's Cafe* (62 Sup. Ct. 807).

<sup>6</sup> *Bakery and Pastry Drivers and Helpers Local 808 v. Wohl* (62 Sup. Ct. 816).

## IRISH TRADE-UNION ACT OF 1941

ORGANIZATIONS of employers and employees are not allowed to negotiate agreements on wages or other conditions of employment unless they are licensed, under the terms of the Trade-Union Act adopted by the Parliament of Ireland on September 22, 1941.<sup>1</sup> The Minister for Industry and Commerce was empowered to order the licensing provision of this law to come into operation not earlier than 6 months from the date of enactment, and fixed the effective date as May 1, 1942. By the terms of the legislation, provision is also made for establishing a trade-union tribunal to determine the unions which shall be the recognized employer and employee organizations. The new measure is expected to bring about a reduction in the number of unions and prevent overlapping and interunion difficulties.

No body of persons will be granted a "negotiation license" to establish wages or other conditions of employment, unless either it is an authorized trade-union registered under the Trade-Union Acts of 1871 to 1935 or is a trade-union under the law of another country with headquarters control in that country; and unless it has deposited with the High Court the sum required by the terms of the 1941 law.

*Scale of Deposits*

The amount to be deposited with the High Court depends upon the number of members in the union. Trade-unions having not more than 500 members are required to deposit £1,000. The highest deposit is for membership exceeding 20,000 for which the deposit is £8,000, plus £200 for each additional 1,000 members (or part thereof), but subject to a maximum of £10,000.

Reductions in the schedule of deposits required, not to exceed 75 percent, are permissible in cases of hardship arising from the abnormal conditions incident to the war. No order granting relief from the entire deposit may remain effective later than 12 months from the date when the Emergency Powers Act of 1939 ceases to be in force.

Within a month after the expiration of 3 years from the date an authorized trade-union makes a deposit, a notice must be given the Minister as to changes in membership, in order to adjust the amount deposited. The adjustments in the amount deposited must be made within 4 months after the expiration of the 3-year period. Either failure to submit a statement or misrepresentation of the facts is punishable by a fine.

*Negotiation Licenses*

Judgments against trade-unions holding negotiation licenses may be paid from their deposits, upon order of the High Court. Trade-unions must make up any resulting deficiencies in their deposits within 3 months from notification.

Negotiation licenses may be issued to trade-unions registered under the Trade-Union Acts of 1871 to 1935 and to those not so registered which meet specified conditions. In either case the unions are re-

<sup>1</sup> Data are from report of C. M. Gerrity, United States vice consul at Dublin; and Irish Trade Journal and Statistical Bulletin, (Dublin), December 1941 (p. 164).

quired to keep certain records. The Minister for Industry and Commerce may by order revoke any license if he is satisfied that the holder has ceased to be an authorized trade-union.

### *Powers and Duties of Trade-Union Tribunal*

The Trade-Union Tribunal provided for by the new law is to be formed by the Minister and is to consist of a chairman and four ordinary members. The chairman is required to be a practicing barrister of at least 10 years' standing or a practicing solicitor of like standing or a person experienced in the operation of trade-unions or in settling trade disputes. A temporary chairman having the same qualifications as the chairman may serve when the chairman is unable to attend sittings. Appointment of the chairman is for a term to be fixed by the Minister, but not to exceed 5 years. Two panels of persons eligible for appointment as ordinary members, nominated by and representing employer and employee bodies are to be maintained by the Minister. Three members are required to sit at every meeting of the tribunal. If an application has been made by an employer body, the chairman and the members appointed from the employers' panel shall serve, and if the employees have applied their representatives shall serve. A person directly interested in any case may not sit, however, but shall be replaced by a substitute appointed by the Minister from the same panel. Decisions are arrived at by majority vote.

The tribunal is empowered to determine whether or not a body has the exclusive right to organize employers or workers of a certain class. It may also determine that two or more specified bodies have this right. But the tribunal is forbidden to grant exclusive organizing rights to employer bodies or trade-unions registered under the law of another country and having their headquarters control in that country.

Before determining the sole right of bodies to organize workers of a particular class, the tribunal may arrange to permit the affected persons to vote. If any trade-union fails to comply with the ballot requirement, it is liable to a fine on summary conviction.

Once a determination is made that two or more employer bodies and trade-unions have the sole organizing right, no application may be made affecting that particular class of work until at least 5 years have elapsed from the date the determination was granted. No other body may make such an application within the specified length of time or until the determination is revoked.

Employer bodies and trade-unions may make written request for review of a determination within 1 month after it is granted, but the operation of the determination is not thereby affected. In appeal cases the Minister for Industry and Commerce is required to submit the determination to an appeal board for consideration. Every appeal board is to consist of a chairman, who is a judge of the High Court or Circuit Court nominated by the President of the High Court, and two ordinary members nominated by the Minister. Depending upon the origin of the case, that is whether it comes from employers or workers, the ordinary members are chosen from employer or trade-union panels, respectively. The Appeal Board, after hearing every person who desires to be heard, may, upon grounds stated by it, refer a case back to the tribunal for reconsideration, or may decline to interfere.

After reconsideration, the tribunal may unanimously decline to interfere in the determination; or in other cases may either revoke it



without giving a new determination, or make a new determination embodying the views of the appeal board. A determination of the chairman is deemed to be a determination of the tribunal in these cases, and is final and not open to review.

### *Membership Regulations*

No other body of employers or trade-unions may accept a member of a class which has been covered in a determination of the tribunal granting exclusive organizing right. Nothing in this section of the law shall be construed to extend to or apply in respect of any civil-service staff association, or to prevent a teacher organization from accepting new members, or to prevent a nonnegotiating body from accepting any person as a member.

Exclusive bargaining agencies may not refuse membership to applicants of the class covered by a determination unless the applicant is of bad character or has been expelled from a union for breaches of its rules. A refusal order must state its grounds. The person refused membership may appeal to the justice of the District Court in the jurisdiction where he resides, and the justice may, as he thinks proper, grant or refuse the request. If the request is granted, the employer or worker body must accept the applicant, subject to a fine for failure to comply. The fine is payable by the union itself if registered under the Trade-Union Acts, and otherwise by the members and officers consenting to or facilitating the failure to admit the applicant.



## LABOR CODE OF PANAMA, 1941<sup>1</sup>

A LABOR code, adopted in Panama in 1941, incorporates in unified form existing labor legislation as well as new regulations of the employment contract. It deals with hours of work and weekly rest, wages (including the minimum wage), work of women and minors, paid vacations and sick leave, placement, restrictions on employment of aliens, workers' organizations, strikes and lock-outs, compensation for industrial accidents and occupational diseases, termination of contract, and the securing of workers' legal rights. This code (decree No. 78 of July 28, 1941) became effective upon its publication in the *Gaceta Oficial*, on August 8, 1941.

### *Hours of Work and Weekly Rest*

The 8-hour day is established in the Republic, and no person can be required to work a greater number of hours (domestic servants are, however, excluded from this limitation). Every hour beyond the 8-hour limit shall be considered overtime and be paid for at the rate of time and a quarter. Except in cases specified below the worker may not work more than 3 hours of overtime per day. The Executive Authority shall determine the enterprises which, by their nature, require a greater amount of time than this. Every industrial and commercial establishment, public and private, which requires work beyond 8 hours daily must have enough workers to insure that for no worker shall the workday exceed the specified time. Pay for overtime

<sup>1</sup> Data are from Panama, *Gaceta Oficial* (Panama), August 8, 1941.

must be claimed within a year from the date when it was due. The workday may be divided into two or more parts, by agreement between the parties. Fines, or equivalent imprisonment, are provided for violation of this hours legislation.

No person may be required to work on Sundays or on national holidays, but special agreement may be made between the interested parties for the following kinds of work: That which cannot be interrupted because of its nature, the urgent necessity of getting it done, or its technical or practical character, or because interruption would cause serious loss to the public interest or health; and work necessary because of imminent damage or in order to take advantage of natural causes. When work must be done on Sundays, employees shall have a right to a weekly rest period of 24 continuous hours, taken in rotation by agreement with the employer or his representative; fines upon both employer and worker are specified for violation of this provision.

Work done on national holidays shall be paid for at the rate of time and a quarter.

### *Wage Provisions*

The cash wages must be paid on the date specified. Payments in kind (housing, food, etc.) are considered an integral part of the wage. Any requirement that workers take their pay in specified articles to be consumed or for sale in fixed places is forbidden. Unless by agreement to the contrary, workers shall be paid at their place of work; the only persons who may be paid in any place of recreation, tavern, canteen, or shop, are those who work there.

The Executive Authority may fix the minimum pay for all classes of work, taking into account the working place, the kind of work done, and the worker's specialty.

Cash advance payment of wages shall give the right, upon failure of the worker to fulfil his obligations, to the appropriate civil action, but the worker shall not be compelled to work against his will (exceptions to this are the special laws relating to commerce and to marine navigation). On the other hand, if the worker is proved to have left his job without legal cause, after having received advance payments which have not been canceled, the Workers' Organization Section (*Sección de Organización Obrera*) of the Ministry of Agriculture and Commerce shall register the fact and it shall be considered a serious blot upon his occupational record.

The employer shall not reduce the pay of the worker after 5 years' consecutive service, except for causes which the Executive Authority shall determine (also taking into account current wages at the time). All discrimination in the matter of wages (except on the basis of the output and efficiency of the worker who renders the service), which does not offer equal opportunity to all is prohibited.

### *Work of Women and Minors*

Women may do any work which is not opposed to the natural limitations of their sex, in the same conditions and with the same pay as men working in the same kind of work. A pregnant woman may absent herself from work for approximately 4 weeks before the probable date of childbirth and for 6 weeks afterward, without her con-

tract being considered terminated for that reason. In case of illness during pregnancy or after childbirth and because of it, the woman may be absent from her work (but without pay) for a period not to exceed 90 days, and shall retain her right to the job. During the period of lactation, the mother is entitled to two intermissions of 45 minutes each, within each working day, at times fixed by herself, with no deduction from pay for the time.

The work of a minor is prohibited in the following cases: (1) When work must be done in places where lack of experience or skill can expose him to accident, (2) when it interferes with his primary education (unless he is more than 15 years of age and the work is necessary for his own living), (3) when the kind of work he would have to do is unsuited to his physical development or moral education, and (4) (persons under 15 only) when he would have to work between 9 p. m. and 5 a. m. No minor can be required to work without his consent nor against the will of the person legally responsible for him.

### *Vacations, Leave, Special Benefits*

After 11 months of continuous service, and for each succeeding period of 11 consecutive months, 1 month's paid vacation shall be granted. These vacations can be accumulated up to a total of 2 periods; they must be granted in vacation time, and not in equivalent cash. The employer is authorized to discharge a worker proved to have been employed in another enterprise during his vacation. Transfer of business from one owner to another shall not interfere with vacation rights the workers have earned or are earning.

In case of proved illness, the worker shall have a right each year to 15 days of leave with pay, and up to 90 days more without pay, without in either case the contract of employment being considered terminated.

### *Safety and Security Measures for the Workers*

Every industrial, commercial, agricultural, or other enterprise which operates in the country shall send in triplicate, to the Workers' Organization Section of the Ministry of Agriculture and Commerce, a statement giving for each permanent wage-earning or salaried employee the name, sex, age, civil status, nationality, hours of work, and pay. All changes in personnel must also be reported to the Workers' Organization Section. The Workers' Organization Section shall retain the original of the report and send the duplicates to the Social Insurance Fund and the Internal Revenue Administration. Failure of an employer to furnish reports shall be punishable by fine or imprisonment.

A placement register shall be maintained in the office of the Workers' Organization Section. Every worker may be registered in this office and receive an identification card. Both the registration and the identification card shall contain the worker's full name, the number of the identification card, date and place of worker's birth, nationality, civil status, sex, occupation or position and length of time held, and fingerprints.

At least 75 percent of the employees of every industrial, agricultural, commercial, or other enterprise must be Panamanians by birth or



adoption, or aliens of permitted immigration married to a Panamanian woman or with 20 or more years' residence in the country; to this group must be paid not less than 75 percent of the total amount paid in wages and salary by the company (including payments in kind). Upon recommendation by the Workers' Organization Section, and after it has been proved that no Panamanians whatever are available for specified work, the Executive Authority may authorize a temporary reduction in the proportion of Panamanian workers. Experts and technicians necessary for the operation of the enterprises are exempted from the 75-percent rule, on approval by the Ministry of Agriculture and Commerce. Also exempted are employees of the headquarters of international enterprises wishing to become established in Panama. Persons of prohibited immigration (certain Oriental and other races) may be employed only in agriculture, aviculture, apiculture, hand laundries, and domestic (including restaurant) service, and in service as craftsmen, industrial employees, day laborers, mechanics, and chauffeurs. The Ministry of Agriculture and Commerce is given discretion in special cases to permit persons of races whose immigration is prohibited to continue in employments outside the classes permitted by this decree. The records of establishments may be examined to see that they comply with the legislation providing for a minimum percentage of nationals and penalties are provided for noncompliance.

Without cost to the interested parties, the Section of Social Justice is to settle controversies over interpretations of labor contracts, using data furnished by the Workers' Organization Section of the Ministry of Agriculture and Commerce. Cases may be brought in either oral or written form, but a written opinion shall be rendered on each. These decisions of the Section of Social Justice may be appealed to the Executive Authority.

The Workers' Organization Section shall establish and keep current a detailed register of all the personnel of the workers' associations duly constituted, giving pertinent information about each wage-earning or salaried employee. A sectional register must also be kept by the mayor of every municipality.

To prevent accidents, employers are required to put in practice the measures and precautions indicated by experience and to adopt all those which, for this purpose, the Ministries of Health and Public Works and of Agriculture and Commerce suggest.

### *Settlement of Labor Disputes*

The workers on a specific job or service may resort to a strike, but must notify the employer or his representative of their decision through the local political authority. This official shall immediately notify the Section of Social Justice of the Ministry of Government and Justice and the employer or his representative. The notification shall be accompanied by a statement of the demands; if the employer has not, within 5 days, agreed to the demands, he shall be considered to have refused.

The Section of Social Justice or the office acting for it shall immediately request the employer and workers to select representatives to present their case regarding the controversy. The strike must be held in abeyance while the case is being heard, but not to exceed 1

week; during this time working conditions and relations between employer and workers shall continue unaltered. The decision of the Section of Social Justice or the office acting for it may be appealed to the Executive Authority, whose decision is final. Any gains made by the workers under such decisions shall be considered incorporated in the labor contracts beginning with the day of the declaration of intention to strike.

Civil-service employees are not permitted to strike, nor are workers who do not have direct claims against their employers; violation of this prohibition shall be punished with the immediate dismissal of the employee and cancelation of the labor contract. Instigators of a general strike are subject to specified penalties. The right to strike must be exercised peaceably, without interfering with public order and tranquillity. Penalties are provided for violation of the provisions governing strikes.

Lock-outs by employers are prohibited unless the matter in controversy has previously been submitted by the employer to the Section of Social Justice for decision. An employer may decide to close his establishment permanently if, in his judgment, the conditions set by the Section of Social Justice are burdensome, but under these circumstances he is prohibited from resuming activities of the same sort within the next 12 months.

### *Compensation for Industrial Injuries*

#### COVERAGE

Industries in which the employer is responsible for workmen's compensation benefit are: Factories, mines, quarries, and salt wells; building construction and repair and associated trades; the construction and repair of railways and specified public works; agriculture, forestry and grazing enterprises which regularly employ more than 25 workers, or use power machinery (for the personnel working with such machinery); transportation (including members of the crews of vessels) and fishing; cleaning of streets and drains; workers in theaters, and artistic and administrative personnel whose daily pay does not exceed 5 balboas (but benefits are computed on the basis of the average annual earnings of the injured person); the production and conduction of electric energy and gas and the placement and maintenance of telegraph and telephone lines; stevedoring; personnel in mercantile establishments; paid employees of hospitals and similar institutions; and salaried employees of industrial establishments and the like injured while doing their regular duties. In these industries every employer is held responsible for the accidents which happen to his workers, unless they are due to force majeure outside the work in which the accident is produced. In case the work is being done through a contractor or subcontractor, he shall be jointly liable with the employer, though in a subsidiary capacity, for workmen's compensation benefits to personnel.

The code defines industrial accidents as disabilities caused by violent means and occupational diseases as disabilities occurring gradually.

## BENEFITS

Compensation for total permanent disability is payment of 2 years' salary. For partial permanent disability the compensation shall be computed on the basis of 2 years' pay, in proportion to the degree of disability and according to the schedule of benefits given in the decree. Disfiguring facial injuries shall be considered as permanent partial disability and are entitled to compensation at the rate of 15 to 50 percent of 2 years' pay, depending on the seriousness of the injury. The degree of disability resulting from any injury not covered in the schedule shall be determined by the medical official; appeal from his decision can be carried to arbitration. The expense of such appeal is charged to employer or injured employee respectively if the final decision is in favor of the other. Total permanent disability is defined as that which completely incapacitates the worker for any work or employment.

In case of temporary disability the injured salaried or wage-earning employee shall have a right to half of his daily pay (payable on regular pay days) from the day of the accident until he is able to return to work. When the disability continues for more than a year it shall be considered permanent and shall receive compensation in accordance with the schedule of benefits indicated in that case; the employer can deduct from the compensation only the wages paid during the period of temporary disability. Compensation is to be computed on the basis of the total remuneration in cash or kind being received on the day of the accident.

Indemnity in case of death shall be the cost of burial, up to 50 balboas, and either a lump-sum payment to the dependents amounting to 2 years' pay or regular payments on a scale approved by the Section of Social Justice.

In every case of accident, the employer is also liable for medical and pharmaceutical expenses for the duration of disability (but in cases of permanent disability for not to exceed 1 year from the date of accident). If medical and pharmaceutical assistance is not available in the working place the employer must move the injured worker, if his condition permits, to the nearest place where he can be cared for.

In the case of enterprises whose capital is less than 10,000 balboas, the Section of Social Justice or the judge in the case may reduce the amount of compensation by as much as 50 percent, if the payment of full benefits would be ruinous for the employer; such reduction shall not, however, apply to the employer's liability for medical, surgical, and pharmaceutical aid, nor to burial costs. To evaluate the economic ability of a corporation, the economic capacity of the firm members with unlimited liability for its obligations shall be considered.

Benefits are not payable for injuries intentionally inflicted by the worker upon himself or resulting from his negligence or rashness, nor for those resulting from offenses committed by himself or by another person. Aliens and their beneficiaries residing in Panama shall enjoy the same workmen's compensation benefits as citizens; beneficiaries of alien workers living outside of Panama shall enjoy these rights, provided reciprocal rights are granted to Panamanian citizens by the legislation of the foreign country involved. The present decree does not apply to the alien employers and workers of merchant vessels of international service registered under the Panamanian flag.



## ACCIDENT REPORTING

Accidents must be reported within 48 hours of their occurrence and in the case of occupational diseases as soon as the disease is evident; failure to report, by an injured or ill worker who is in condition to do so, frees the employer from the consequences resulting from lack of medical, surgical, and pharmaceutical assistance. Likewise, the employer or some employee for him shall report the accident within 24 hours to the Section of Social Justice or the mayor of the district, with specified information concerning the accident. Settlements made without judicial proceedings shall also be reported as above, with data concerning such settlement. Fines or equivalent imprisonment are provided for violation of the provisions concerning reports.

## INSURANCE OF RISK

The taking out of workmen's compensation insurance frees the employer from all responsibilities for the risks covered by such insurance. Employers are expressly prohibited from deducting from the pay of the worker the costs of such insurance, on penalty of refunding to the employee 10 times the amount deducted; a specified fine or equivalent imprisonment is also provided for violations.

The Executive Authority may designate as insurance carriers for compulsory insurance covering all or a part of the workers included under this decree, throughout the Republic or in specified localities, insurance institutions which maintain within the country not less than 50 percent of their capital and of their reserve.

## ACTIONS TO COLLECT BENEFITS

Action to collect compensation for an industrial accident must be brought within a year from the date of complete recovery or of death. The worker cannot receive more than one of two indemnities to which his accident might give him a right.

The pauper's right is granted to the plaintiff in case of industrial accidents.

The competent authority in controversies over industrial accidents shall be the judge in the place where the accident occurred or in the place of residence of the plaintiff, as the latter shall elect. In case of a disagreement as to the amount of the compensation to be paid, the parties, on the initiative of either of them, may submit the controversy to the Section of Social Justice of the Ministry of Government and Justice; if the employer pays and the worker receives the amount fixed by that authority, neither has a right to further appeal. The amounts which the employer acknowledges are due to the worker in benefits shall be paid immediately, even though claim has been started or continued for the total amount that the worker demands.

Workers' attorneys, in cases of compensation for industrial accidents, cannot collect fees greater than the scale of fees of lawyers in the city of Panama for ordinary cases; collection of excessive fee shall be punished by the penalties due for violation of professional ethics, in addition to restoring twice the amount which was charged in excess of the fee to which the attorney is entitled.

### *Coverage of Code*

The new code covers every person who contracts his work, either physical or mental, to another person for pay. It specifically includes industrial and commercial employees, day laborers, craftsmen, and mechanics. All public employees are specifically excluded.

### *Contracts of Employment*

Valid labor contracts may be made by (1) adults of any age, in possession of full civil rights, (2) minors over 18 years when parents or guardians do not expressly oppose such action, and (3) persons from 15 to 18 years, provided there is no express opposition on the part of parents or guardians, or (if the minor has neither) of the local police authority. Though the making of a labor contract by persons under 15 years is expressly prohibited even though parent or guardian is willing, the Ministry of Agriculture and Commerce or the local police authority may permit such persons to do specified work if the parent or guardian requests it and the duties do not interfere with school requirements and the minor's moral and physical education.

Contracts may be made for a specified time, for indefinite time, or for a definite amount of work. When no term is specified, indefinite duration is implied, until terminated for specified cause. Legal actions based on a labor contract of unspecified duration must be brought within 3 years from its termination. The Nation, the Provinces, and the municipalities shall be considered employers in all labor contracts for public work except that done by public employees.

The written contracts of employment may be registered with the Chief of the Workers' Organization Section of the Ministry of Agriculture and Commerce, or by the authority that does its work.

*Termination of contract.*—A contract of employment is terminated by the general causes of termination in accordance with the Civil Code, and in addition, by the following causes: (1) Death of the worker, (2) advance notice, (3) dismissal of the worker for cause, (4) the worker's leaving the job for cause, and (5) proved incompetence of the worker. A contract of specified duration cannot be terminated by either of the parties without just cause, but a contract for an indefinite period can be terminated by either party with advance notice of one complete pay period, not less than 1 week. Causes for which either employer or worker may terminate the contract before its termination are specified in the code. At the termination of any contract, the employer is required to furnish the worker, at the latter's request, a certificate stating the time he was employed in his service, the kind of work he did, and the cause of termination of the contract. The employer as well as the worker must notify the chief of the Workers' Organization Section of the termination of a written labor contract which has been registered with that agency. Any disagreement between the parties as to the termination of the contract shall be decided by the Ministry of Government and Justice.

### *General Provisions*

For the computation of indemnities, as provided in this decree, the amount of 300 balboas per month shall be taken as maximum remuneration, even when the employee receives more.

None of the rights of salaried and wage-earning employees conferred by this decree may be renounced or transferred, exchanged, or suspended, and all such transactions are null and void except as provided for in this decree and approved by the appropriate office.

The Executive Authority may suspend for a fixed period of time one or more of the provisions of this decree, in cases where its application is practically impossible or causes great injury.



## Cost of Living

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### COST OF LIVING IN LARGE CITIES, MARCH 1942

THE cost of living in large American cities rose 1.2 percent between mid-February and mid-March, as widespread price advances were reported in retail stores throughout the country, following earlier advances in the wholesale markets. This increase brought the Bureau of Labor Statistics cost-of-living index to 114.3 percent of the 1935-39 average.

Almost all important articles bought by moderate-income families were affected to some extent. Principal advances during the month were for clothing, nearly 4 percent; for food, 1.5 percent; and for housefurnishings, 1.3 percent. The cost of services also advanced, and rents rose slightly. By mid-March, families of wage earners and lower-salaried workers had to spend \$1.16 to buy the same things for which they spent \$1.00 before the outbreak of the war in August 1939.

*Food.*—Retail prices of many foods rose between mid-February and mid-March. There were especially large increases in prices of vegetables, and substantially higher prices for lard and other shortening, coffee, tea, rice and rolled oats. Butter and eggs were seasonally lower, and prices of several fresh vegetables dropped as new supplies came on the market. During the first quarter of this year, the average food bill of wage earners and lower-salaried workers rose nearly 5 percent. It required \$1.27, on the average, to buy the same food supplies in mid-March as could be bought for \$1.00 in August 1939.

*Clothing.*—Clothing prices rose sharply. On the average, the clothing bill for moderate-income families increased almost 4 percent during the month. Increases were reported for almost all articles. Men's topcoats and wool suits showed the greatest rise, increasing, on the average, 9.3 and 7.0 percent, respectively. In addition, substantially higher prices were reported for men's cotton work clothing and business shirts, women's cotton house dresses, and percale yard goods, all of which continued the rapid upward movement of the past year.

*Housefurnishings.*—Prices of housefurnishings rose, on the average, 1.3 percent in the month ending March 15. Prices of most electrical equipment increased slightly with washing machines advancing 1.3 percent, although sewing machine prices declined. Suites of furniture, stoves, sheets and mattresses continued to advance in price.

*Rents.*—The rental bill of moderate-income families increased only slightly in most of the cities surveyed this month. In Seattle, however, there were large advances, 3.3 percent, on the average, with increases reported for a third of the homes renting for less than \$30 and for a large proportion of all other homes occupied by moderate-income families. In St. Louis, also, rents were raised for a large proportion of homes, resulting in a net advance of 1.6 percent between

February and March in the total rental bill of this group. In Washington, D. C., a slight decline was reported between February and March, following a larger decrease in the preceding month, as a result of the Rent Control Law which went into effect in January of this year.

TABLE 1.—Percent of Change in Average Prices Paid for Specified Clothing and Housefurnishings by Wage Earners and Lower-Salaried Workers in 34 Large Cities

Item	Percent of change			
	Feb. 15, 1942, to Mar. 15, 1942	Dec. 15, 1941, to Mar. 15, 1942	Mar. 15, 1941, to Mar. 15, 1942	Sept. 15, 1939, to Mar. 15, 1942
Men's clothing:				
Topcoats.....	+9.3	+7.9	+14.6	+18.8
Suits, wool.....	+7.0	+11.4	+24.3	+27.9
Work trousers, cotton.....	+3.6	+10.0	+29.8	+34.9
Overalls, cotton.....	+3.6	+10.2	+36.1	+44.9
Work shirts, cotton.....	+2.8	+10.8	+41.4	+48.6
Business shirts.....	+3.2	+11.6	+24.4	+25.8
Street shoes.....	+3.0	+8.7	+20.9	+26.8
Work shoes.....	+2.6	+8.7	+25.3	+30.0
Women's clothing:				
Rayon panties.....	+1.3	+6.2	+21.6	+21.7
Percale dresses.....	+2.6	+8.2	+48.7	+57.5
Silk hose.....	+3.4	+6.3	+27.0	+26.1
Women's shoes.....	+1.7	+5.3	+12.6	+13.0
Living-room suites, medium quality.....	(1)	+2.5	+21.7	+30.3
Living-room suites, inexpensive quality.....	+7.7	+2.5	+29.5	+40.1
Bedroom suites, medium quality.....	+1.3	+2.4	+20.8	+24.8
Bedroom suites, inexpensive quality.....	(1)	+2.8	+22.2	+30.3
Electric refrigerators.....	+4.4	+4.3	+14.6	-3.1
Washing machines.....	+1.3	+2.9	+18.0	+21.3
Rugs, Axminster.....	+1.2	+3.3	+10.6	+23.2
Linoleum.....	(1)	(2)	(2)	-6
Mattresses.....	+2.2	+4.4	+22.6	+25.7
Sheets 64 by 64 construction.....	+3.3	+12.9	+43.1	+53.0
Sheets 68 by 72 construction.....	(1)	+12.9	+34.7	+39.5
Carpets, wool.....	(1)	+4.3	+11.3	+26.7

<sup>1</sup> Monthly data not available.

<sup>2</sup> No change.

**Fuel, electricity, and ice.**—In general there was little change in the cost of fuel, gas, electricity, and ice. In Atlanta and Memphis, prices of ice rose considerably between February and March. In the preceding month there had been an increase in ice prices in Kansas City and between December and January in Savannah and Cincinnati. There was a considerable reduction in rates charged for gas in domestic use in New Orleans, effective late in March, but retroactive to September 1941.

**Miscellaneous.**—In many cities, particularly those affected by war activities, there were increases in service charges, such as laundry and barber-shop rates, motion-picture admissions, hospital services, and auto repairs. Advances in prices for toilet and laundry soap and for household supplies made of paper were reported generally throughout the country. Newspaper prices were raised in six cities. In most of the cities surveyed, rates for automobile insurance were higher than in December 1941, the rise occurring early in 1942.

TABLE 2.—Percent of Change from Feb. 15 to Mar. 15, 1942, in Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers in Large Cities, by Groups of Items

City	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
Average: Large cities.....	+1.2	+1.5	+3.9	+0.3	+0.1	+1.3	+0.6
New England:							
Boston.....	+5	+2	+3.2	(3)	(3)	+1.5	+7
Manchester.....	(4)	+1.9	(4)	(4)	(4)	(4)	(4)
Portland, Maine.....	(4)	+1.4	(4)	(4)	+8	(4)	(4)
Middle Atlantic:							
Buffalo.....	+1.4	+1.6	+4.9	+2	+2	+1.5	+7
New York.....	+9	+6	+4.3	+1	(3)	+1.6	+3
Philadelphia.....	+1.4	+1.0	+6.5	+5	(3)	+2.0	+6
Pittsburgh.....	+9	+1.3	+2.3	(3)	+1	+7	+5
Scranton.....	(4)	+2.9	(4)	(4)	(3)	(4)	(4)
East North Central:							
Chicago.....	+1.2	+2.1	+2.4	+1	(3)	+1.0	+7
Cincinnati.....	+1.6	+2.1	+5.6	+2	(3)	+6	+6
Cleveland.....	+1.6	+2.0	+4.2	+5	(3)	+1.1	+9
Detroit.....	+1.5	+2.2	+3.1	+6	+1	+8	+9
Indianapolis.....	(4)	+1.0	(4)	(4)	(3)	(4)	(4)
Milwaukee.....	(4)	+1.5	(4)	(4)	(3)	(4)	(4)
West North Central:							
Kansas City.....	+1.6	+3.4	+2.9	+2	+1	+8	+7
Minneapolis.....	+1.4	+1.6	+5.4	+1	(3)	+1.4	+1.0
St. Louis.....	+1.7	+2.5	+3.5	+1.6	(3)	+1.4	+6
South Atlantic:							
Atlanta.....	(4)	+1.8	(4)	(4)	+3.2	(4)	(4)
Baltimore.....	+1.6	+2.1	+5.3	(3)	(3)	+1.1	+9
Jacksonville.....	(4)	+2.5	(4)	(4)	(3)	(4)	(4)
Norfolk.....	(4)	+2.5	(4)	(4)	(3)	(4)	(4)
Richmond.....	(4)	+9	(4)	(4)	(3)	(4)	(4)
Savannah.....	+1.5	+1.6	+5.0	+2	+3	+8	+8
Washington, D. C.....	+1.4	+1.8	+3.7	-1	(3)	+8	+1.4
East South Central:							
Birmingham.....	+8	+7	+3.3	(4)	(3)	+8	+5
Memphis.....	(4)	+8	(4)	(4)	+4.0	(4)	(4)
Mobile.....	(4)	+4.6	(4)	(4)	-2.1	(4)	(4)
West South Central:							
Houston.....	+1.1	+1.7	+2.6	+2	(3)	+1.1	+6
New Orleans.....	(4)	+1.4	(4)	(4)	-3.9	(4)	(4)
Mountain: Denver.....	+1.3	+1.8	+3.6	+5	(3)	+2.3	+5
Pacific:							
Los Angeles.....	+1.7	+2.9	+3.7	+8	(3)	+1.5	+6
Portland, Oregon.....	(4)	+2.0	(4)	(4)	-7	(4)	(4)
San Francisco.....	+1.3	+1.5	+3.4	(3)	+1	+1.4	+1.0
Seattle.....	+1.4	+6	+3.0	+3.3	(3)	+7	+1.3

<sup>1</sup> Based on data for 51 cities. <sup>2</sup> Based on data for 34 cities. <sup>3</sup> No change. <sup>4</sup> Monthly data not available.

TABLE 3.—Percent of Change in Cost of All Goods Purchased by Wage Earners and Lower-Salaried Workers in Large Cities, for Specified Periods

City	Percent of change		City	Percent of change	
	Mar. 15, 1941, to Mar. 15, 1942	Aug. 15, 1939, to Mar. 15, 1942		Mar. 15, 1941, to Mar. 15, 1942	Aug. 15, 1939, to Mar. 15, 1942
Average: Large cities.....	+12.9	+15.9	South Atlantic:		
New England:			Atlanta.....	+13.3	+16.2
Boston.....	+12.2	+14.9	Baltimore.....	+15.0	+18.2
Manchester.....	+15.5	+18.2	Jacksonville.....	+15.2	+19.8
Portland, Maine.....	+14.3	+16.3	Norfolk.....	+17.4	+23.2
Middle Atlantic:			Richmond.....	+13.4	+15.7
Buffalo.....	+14.6	+19.6	Savannah.....	+16.5	+19.2
New York.....	+10.3	+13.1	Washington, D. C.....	+12.5	+15.1
Philadelphia.....	+13.3	+15.3	East South Central:		
Pittsburgh.....	+12.2	+15.7	Birmingham.....	+15.5	+19.1
Scranton.....	+13.1	+16.8	Memphis.....	+14.6	+17.4
East North Central:			Mobile.....	+19.5	+23.2
Chicago.....	+12.0	+15.2	West South Central:		
Cincinnati.....	+13.8	+17.6	Houston.....	+12.7	+14.5
Cleveland.....	+13.7	+17.0	New Orleans.....	+14.8	+18.0
Detroit.....	+14.7	+18.9	Mountain: Denver.....	+13.3	+14.8
Indianapolis.....	+14.7	+19.6	Pacific:		
Milwaukee.....	+13.3	+16.2	Los Angeles.....	+13.7	+15.9
West North Central:			Portland, Oreg.....	+16.0	+19.0
Kansas City.....	+13.8	+14.5	San Francisco.....	+13.0	+16.5
Minneapolis.....	+11.9	+14.6	Seattle.....	+16.1	+19.2
St. Louis.....	+13.6	+17.0			



TABLE 4.—Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers, by Groups of Items, Jan. 15, 1942, to Mar. 15, 1942<sup>1</sup>

[Average 1935-39=100]

City and date	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
<b>Average, large cities:</b>							
Jan. 15.....	112.0	116.2	116.1	108.4	104.3	118.2	108.5
Feb. 15.....	112.9	116.8	119.0	108.6	104.4	119.7	109.4
Mar. 15.....	114.3	118.6	123.6	108.9	104.5	121.2	110.1
<b>Atlanta:</b>							
Jan. 15.....	( <sup>2</sup> )	114.3	( <sup>2</sup> )	( <sup>2</sup> )	107.9	( <sup>2</sup> )	( <sup>2</sup> )
Feb. 15.....	( <sup>2</sup> )	116.3	( <sup>2</sup> )	( <sup>2</sup> )	107.9	( <sup>2</sup> )	( <sup>2</sup> )
Mar. 15.....	113.9	118.4	124.0	106.3	111.4	119.2	109.5
<b>Baltimore:</b>							
Jan. 15.....	113.9	119.0	116.9	113.2	103.5	124.4	107.1
Feb. 15.....	114.9	120.5	118.4	113.6	103.5	125.1	107.8
Mar. 15.....	116.7	123.0	124.7	113.6	103.5	126.5	108.8
<b>Birmingham:</b>							
Jan. 15.....	115.1	115.2	120.1	129.5	100.1	117.5	108.9
Feb. 15.....	116.4	117.0	121.8	130.4	100.1	117.9	110.0
Mar. 15.....	117.3	117.8	125.8	130.4	100.1	118.9	110.5
<b>Boston:</b>							
Jan. 15.....	109.5	112.6	113.7	104.2	110.4	115.6	105.9
Feb. 15.....	111.0	115.1	116.5	104.6	110.4	117.0	106.8
Mar. 15.....	111.6	115.3	120.2	104.6	110.4	118.7	107.6
<b>Buffalo:</b>							
Jan. 15.....	115.0	118.4	117.4	114.7	103.3	121.0	112.3
Feb. 15.....	116.2	119.6	120.2	114.7	103.3	123.8	113.8
Mar. 15.....	117.8	121.5	126.1	114.9	103.5	125.7	114.6
<b>Chicago:</b>							
Jan. 15.....	112.0	116.0	112.7	112.5	103.4	116.2	107.4
Feb. 15.....	112.4	115.1	116.7	112.7	103.4	118.3	108.3
Mar. 15.....	113.7	117.5	119.5	112.8	103.4	119.5	109.1
<b>Cincinnati:</b>							
Jan. 15.....	111.8	115.8	117.0	104.1	104.6	124.2	108.0
Feb. 15.....	112.6	116.4	118.9	104.2	104.6	125.2	109.2
Mar. 15.....	114.4	118.9	125.5	104.4	104.6	126.0	109.9
<b>Cleveland:</b>							
Jan. 15.....	114.7	117.8	120.4	116.4	112.0	121.7	107.5
Feb. 15.....	115.2	118.1	120.6	116.4	112.0	122.4	108.6
Mar. 15.....	117.0	120.5	125.7	117.0	112.0	123.7	109.6
<b>Denver:</b>							
Jan. 15.....	111.3	116.4	114.3	108.4	98.2	117.5	108.1
Feb. 15.....	111.8	115.8	116.6	108.4	99.3	118.6	109.2
Mar. 15.....	113.2	117.9	120.8	108.9	99.3	121.3	109.7
<b>Detroit:</b>							
Jan. 15.....	114.5	115.0	117.3	118.4	106.7	117.8	111.2
Feb. 15.....	115.4	115.8	120.9	118.6	106.7	119.7	111.9
Mar. 15.....	117.1	118.4	124.7	119.3	106.8	120.6	112.9
<b>Houston:</b>							
Jan. 15.....	112.5	120.1	119.6	107.4	93.9	120.6	107.1
Feb. 15.....	114.0	122.5	122.5	107.4	93.9	121.0	108.5
Mar. 15.....	115.3	124.6	125.7	107.6	93.9	122.3	109.2
<b>Indianapolis:</b>							
Jan. 15.....	( <sup>2</sup> )	118.1	( <sup>2</sup> )	( <sup>2</sup> )	103.1	( <sup>2</sup> )	( <sup>2</sup> )
Feb. 15.....	( <sup>2</sup> )	119.6	( <sup>2</sup> )	( <sup>2</sup> )	103.1	( <sup>2</sup> )	( <sup>2</sup> )
Mar. 15.....	117.2	120.8	125.2	119.0	103.1	125.6	111.6
<b>Jacksonville:</b>							
Jan. 15.....	( <sup>2</sup> )	120.0	( <sup>2</sup> )	( <sup>2</sup> )	108.1	( <sup>2</sup> )	( <sup>2</sup> )
Feb. 15.....	( <sup>2</sup> )	121.3	( <sup>2</sup> )	( <sup>2</sup> )	108.1	( <sup>2</sup> )	( <sup>2</sup> )
Mar. 15.....	118.0	124.3	123.5	117.1	108.1	120.7	111.7
<b>Kansas City:</b>							
Jan. 15.....	109.8	112.2	114.1	108.1	102.8	113.4	107.8
Feb. 15.....	111.1	112.7	118.2	108.5	105.5	116.0	108.9
Mar. 15.....	112.9	116.5	121.6	108.7	105.6	116.9	109.7
<b>Los Angeles:</b>							
Jan. 15.....	113.5	120.6	119.0	108.6	94.2	116.1	109.2
Feb. 15.....	114.5	121.4	121.6	108.8	94.2	117.0	110.3
Mar. 15.....	116.5	124.9	126.1	109.7	94.2	118.7	111.0
<b>Manchester:</b>							
Jan. 15.....	( <sup>2</sup> )	114.5	( <sup>2</sup> )	( <sup>2</sup> )	111.7	( <sup>2</sup> )	( <sup>2</sup> )
Feb. 15.....	( <sup>2</sup> )	116.5	( <sup>2</sup> )	( <sup>2</sup> )	111.7	( <sup>2</sup> )	( <sup>2</sup> )
Mar. 15.....	115.6	118.7	124.9	107.2	111.7	120.3	111.2
<b>Memphis:</b>							
Jan. 15.....	( <sup>2</sup> )	115.3	( <sup>2</sup> )	( <sup>2</sup> )	100.1	( <sup>2</sup> )	( <sup>2</sup> )
Feb. 15.....	( <sup>2</sup> )	116.9	( <sup>2</sup> )	( <sup>2</sup> )	100.1	( <sup>2</sup> )	( <sup>2</sup> )
Mar. 15.....	114.8	117.8	130.8	114.6	104.1	124.2	106.7
<b>Milwaukee:</b>							
Jan. 15.....	( <sup>2</sup> )	113.3	( <sup>2</sup> )	( <sup>2</sup> )	103.8	( <sup>2</sup> )	( <sup>2</sup> )
Feb. 15.....	( <sup>2</sup> )	114.3	( <sup>2</sup> )	( <sup>2</sup> )	103.8	( <sup>2</sup> )	( <sup>2</sup> )
Mar. 15.....	112.7	116.0	121.1	107.9	103.8	124.6	108.9

<sup>1</sup> Some indexes for January and February revised.<sup>2</sup> Data not available.

TABLE 4.—Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers, by Groups of Items, Jan. 15, 1942, to Mar. 15, 1942—Continued

[Average 1935-39=100]

City and date	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
<b>Minneapolis:</b>							
Jan. 15.....	111.9	114.9	116.1	100.1	98.8	120.8	111.2
Feb. 15.....	112.7	115.4	117.8	109.2	98.8	121.9	112.4
Mar. 15.....	114.3	117.3	124.2	109.3	98.8	123.6	113.5
<b>Mobile:</b>							
Jan. 15.....	( <sup>2</sup> )	124.0	( <sup>2</sup> )	( <sup>2</sup> )	104.0	( <sup>2</sup> )	( <sup>2</sup> )
Feb. 15.....	( <sup>2</sup> )	125.3	( <sup>2</sup> )	( <sup>2</sup> )	104.7	( <sup>2</sup> )	( <sup>2</sup> )
Mar. 15.....	121.5	131.1	124.8	131.0	102.5	121.2	110.3
<b>New Orleans:</b>							
Jan. 15.....	( <sup>2</sup> )	123.0	( <sup>2</sup> )	( <sup>2</sup> )	100.1	( <sup>2</sup> )	( <sup>2</sup> )
Feb. 15.....	( <sup>2</sup> )	126.2	( <sup>2</sup> )	( <sup>2</sup> )	100.0	( <sup>2</sup> )	( <sup>2</sup> )
Mar. 15.....	117.6	128.0	126.6	106.5	96.1	125.8	109.0
<b>New York:</b>							
Jan. 15.....	110.3	115.4	113.5	102.9	103.5	112.9	108.4
Feb. 15.....	111.0	115.8	117.3	103.0	103.6	115.3	109.0
Mar. 15.....	112.0	116.5	122.3	103.1	103.6	117.2	109.3
<b>Norfolk:</b>							
Jan. 15.....	( <sup>2</sup> )	121.1	( <sup>2</sup> )	( <sup>2</sup> )	113.4	( <sup>2</sup> )	( <sup>2</sup> )
Feb. 15.....	( <sup>2</sup> )	123.6	( <sup>2</sup> )	( <sup>2</sup> )	113.4	( <sup>2</sup> )	( <sup>2</sup> )
Mar. 15.....	120.5	126.7	127.3	119.5	113.4	123.5	112.6
<b>Philadelphia:</b>							
Jan. 15.....	110.6	113.9	114.0	106.0	103.4	117.5	108.4
Feb. 15.....	111.2	114.5	116.0	106.0	103.4	118.5	108.9
Mar. 15.....	112.8	115.7	123.5	106.5	103.4	120.9	109.5
<b>Pittsburgh:</b>							
Jan. 15.....	112.1	116.9	118.0	107.0	106.7	119.1	107.2
Feb. 15.....	112.8	116.3	123.0	107.1	106.7	121.5	108.3
Mar. 15.....	113.8	117.8	125.8	107.1	106.8	122.4	108.8
<b>Portland, Maine:</b>							
Jan. 15.....	( <sup>2</sup> )	112.4	( <sup>2</sup> )	( <sup>2</sup> )	106.3	( <sup>2</sup> )	( <sup>2</sup> )
Feb. 15.....	( <sup>2</sup> )	115.5	( <sup>2</sup> )	( <sup>2</sup> )	106.3	( <sup>2</sup> )	( <sup>2</sup> )
Mar. 15.....	112.9	117.1	121.0	105.0	107.1	120.1	110.3
<b>Portland, Oreg.:</b>							
Jan. 15.....	( <sup>2</sup> )	125.8	( <sup>2</sup> )	( <sup>2</sup> )	107.5	( <sup>2</sup> )	( <sup>2</sup> )
Feb. 15.....	( <sup>2</sup> )	127.0	( <sup>2</sup> )	( <sup>2</sup> )	107.5	( <sup>2</sup> )	( <sup>2</sup> )
Mar. 15.....	119.1	129.6	122.4	114.4	106.7	121.0	111.8
<b>Richmond:</b>							
Jan. 15.....	( <sup>2</sup> )	115.7	( <sup>2</sup> )	( <sup>2</sup> )	104.3	( <sup>2</sup> )	( <sup>2</sup> )
Feb. 15.....	( <sup>2</sup> )	117.4	( <sup>2</sup> )	( <sup>2</sup> )	104.3	( <sup>2</sup> )	( <sup>2</sup> )
Mar. 15.....	113.4	118.4	129.2	104.2	104.3	126.9	107.4
<b>St. Louis:</b>							
Jan. 15.....	111.8	119.8	118.6	104.2	106.3	113.1	105.5
Feb. 15.....	112.9	119.9	121.1	104.5	106.3	114.4	107.9
Mar. 15.....	114.8	122.9	125.3	106.2	106.3	116.0	108.5
<b>San Francisco:</b>							
Jan. 15.....	113.9	120.7	119.3	105.6	92.9	117.0	111.7
Feb. 15.....	114.2	120.1	119.4	105.6	93.2	118.0	112.7
Mar. 15.....	115.7	121.9	123.5	105.6	93.3	119.7	113.8
<b>Savannah:</b>							
Jan. 15.....	115.4	121.2	118.2	113.8	106.5	118.3	109.9
Feb. 15.....	116.7	123.2	119.6	114.7	105.9	118.8	111.2
Mar. 15.....	118.4	125.2	125.6	114.9	106.2	119.8	112.1
<b>Scranton:</b>							
Jan. 15.....	( <sup>2</sup> )	114.6	( <sup>2</sup> )	( <sup>2</sup> )	99.5	( <sup>2</sup> )	( <sup>2</sup> )
Feb. 15.....	( <sup>2</sup> )	114.3	( <sup>2</sup> )	( <sup>2</sup> )	99.5	( <sup>2</sup> )	( <sup>2</sup> )
Mar. 15.....	112.1	117.6	127.5	98.4	99.5	123.0	108.0
<b>Seattle:</b>							
Jan. 15.....	116.7	125.3	117.7	118.3	100.6	115.5	110.2
Feb. 15.....	117.9	126.0	121.6	118.8	100.7	117.8	111.5
Mar. 15.....	119.6	126.7	125.2	122.7	100.7	118.6	112.9
<b>Washington, D. C.:</b>							
Jan. 15.....	111.1	116.4	122.2	100.7	102.1	125.6	109.1
Feb. 15.....	111.9	116.2	125.8	100.7	101.7	127.8	110.2
Mar. 15.....	113.5	118.3	120.5	100.6	101.7	128.8	111.7

<sup>2</sup> Data not available.

TABLE 5.—Changes in Rents Paid by Moderate-Income White-Tenant Families in 34 Large Cities, by Amount of Monthly Rental

City	December 1941 to March 1942								
	Percent of homes for which rents were raised			Average increase (in dollars)			Percent of change for all rents <sup>1</sup>		
	Less than \$30	\$30 to \$49.99	\$50 and over	Less than \$30	\$30 to \$49.99	\$50 and over	Less than \$30	\$30 to \$49.99	\$50 and over
<b>New England:</b>									
Boston.....	6.2	5.6	2.0	2.35	2.76	1.25	+0.6	+0.4	-0.2
Manchester.....	3.4	1.5	( <sup>2</sup> )	1.65	2.50	( <sup>2</sup> )	+3	+1	( <sup>2</sup> )
Portland, Maine.....	11.1	12.4	7.1	3.48	3.73	7.50	+1.9	+1.3	+9
<b>Middle Atlantic:</b>									
Buffalo.....	5.1	9.5	9.5	2.17	2.75	4.18	+4	+6	+6
New York.....	3.8	2.9	1.0	2.07	2.78	4.00	+3	+1	-1
Philadelphia.....	9.1	6.3	2.9	2.81	7.09	4.00	+1.0	+7	+2
Pittsburgh.....	.8	.4	.8	2.00	2.50	5.00	+1	( <sup>2</sup> )	+1
Scranton.....	.9	( <sup>2</sup> )	2.5	1.67	( <sup>2</sup> )	2.50	+1	( <sup>2</sup> )	+1
<b>East North Central:</b>									
Chicago.....	4.9	4.1	2.5	2.93	2.91	3.33	+6	+3	+1
Cincinnati.....	3.0	6.1	1.8	2.61	5.30	2.00	+4	+8	+1
Cleveland.....	4.8	3.4	6.5	2.82	2.79	3.75	+4	+2	( <sup>2</sup> )
Detroit.....	12.7	10.5	4.2	3.50	4.06	4.38	+1.2	+9	+3
Indianapolis.....	5.6	6.5	( <sup>2</sup> )	2.51	2.14	( <sup>2</sup> )	+6	+3	( <sup>2</sup> )
Milwaukee.....	9.1	2.0	5.1	3.86	3.19	3.12	+1.5	+2	+2
<b>West North Central:</b>									
Kansas City.....	10.0	9.2	3.3	2.46	3.75	2.50	+1.1	+8	+1
Minneapolis.....	1.4	1.0	( <sup>2</sup> )	3.08	2.50	( <sup>2</sup> )	+2	( <sup>2</sup> )	-1
St. Louis.....	18.0	14.9	8.6	2.51	3.77	6.14	+2.2	+1.5	+7
<b>South Atlantic:</b>									
Atlanta.....	1.6	3.2	( <sup>2</sup> )	1.75	2.50	( <sup>2</sup> )	+1	+2	-3
Baltimore.....	8.5	9.7	7.6	3.36	4.39	6.11	+1.2	+1.1	+6
Jacksonville.....	8.2	6.5	16.7	2.97	3.75	10.00	+1.1	+7	+3.0
Norfolk.....	3.8	1.8	( <sup>2</sup> )	5.77	3.12	( <sup>2</sup> )	+1.2	+3	( <sup>2</sup> )
Richmond.....	.6	1.2	1.8	3.25	3.75	2.50	+5	+1	+1
Savannah.....	4.4	2.4	( <sup>2</sup> )	1.82	4.17	( <sup>2</sup> )	+4	+2	-4
Washington, D. C.....	( <sup>2</sup> )	.2	.3	( <sup>2</sup> )	6.50	.50	-1.3	-7	-5
<b>East South Central:</b>									
Birmingham.....	7.0	8.4	3.8	2.79	3.64	11.25	+7	+6	+6
Memphis.....	6.1	3.6	3.7	3.02	3.06	3.75	+7	+3	+2
Mobile.....	1.1	1.4	( <sup>2</sup> )	1.88	7.50	( <sup>2</sup> )	+1	+2	( <sup>2</sup> )
<b>West South Central:</b>									
Houston.....	3.4	3.5	1.5	2.89	3.89	3.75	+3	+2	-4
New Orleans.....	8.2	6.1	3.5	2.67	4.29	7.50	+1.1	+7	+3
Mountain: Denver.....	4.6	4.3	4.8	2.95	3.93	3.33	+5	+3	+3
<b>Pacific:</b>									
Los Angeles.....	9.6	4.9	1.5	3.19	3.35	5.50	+1.1	+3	-1
Portland, Oreg.....	12.8	12.2	25.0	3.35	3.67	5.00	+1.8	+1.0	+2.2
San Francisco.....	.9	3.0	5.0	5.00	3.09	5.45	+6	+1	( <sup>2</sup> )
Seattle.....	33.0	31.2	15.0	3.51	4.56	5.83	+4.8	+3.4	+1.3

<sup>1</sup> Includes rents which remained unchanged or declined, as well as those which advanced.<sup>2</sup> None reported.



TABLE 6.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers, by Years, 1935-41, and by Months, January 1941 to March 1942*

[Average 1935-39=100]

Year	All Items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1935.....	98.1	100.4	96.8	94.2	100.7	94.8	98.1
1936.....	99.1	101.3	97.6	96.4	100.2	96.3	98.7
1937.....	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1938.....	100.8	97.8	102.2	104.1	99.9	103.3	101.5
1939.....	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1940.....	100.2	96.6	101.7	104.6	99.7	100.5	101.1
1941.....	105.2	105.5	106.5	105.9	102.5	108.2	104.0
Jan. 15.....	100.8	97.8	100.7	105.0	100.8	100.1	101.9
Feb. 15.....	100.8	97.9	100.4	105.1	100.6	100.4	101.9
Mar. 15.....	101.2	98.4	102.1	105.1	100.7	101.6	101.9
Apr. 15.....	102.2	100.6	102.4	105.4	101.0	102.4	102.2
May 15.....	102.9	102.1	102.8	105.7	101.1	103.2	102.5
June 15.....	104.6	105.9	103.3	105.8	101.4	105.3	103.3
July 15.....	105.3	106.7	104.8	106.1	102.3	107.4	103.7
Aug. 15.....	106.2	108.0	106.9	106.3	103.2	108.9	104.0
Sept. 15.....	108.1	110.7	110.8	106.8	103.7	112.0	105.0
Oct. 15.....	109.3	111.6	112.6	107.6	104.0	114.4	106.9
Nov. 15.....	110.2	113.1	113.8	107.8	104.0	115.6	107.4
Dec. 15.....	110.5	113.1	114.8	108.2	104.1	116.8	107.7
1942:							
Jan. 15.....	112.0	116.2	116.1	108.4	104.3	118.2	108.5
Feb. 15.....	112.9	116.8	119.0	108.6	104.4	119.7	109.4
Mar. 15.....	114.3	118.6	123.6	108.9	104.5	121.2	110.1

# Wage and Hour Statistics

## EARNINGS IN THE AGRICULTURAL-MACHINERY INDUSTRY, 1942<sup>1</sup>

### Summary

TO PROVIDE basic information on the effects of the transition to a war economy on industrial products, technological processes, occupational patterns, and wage structures, the Bureau of Labor Statistics has undertaken a series of studies of establishments manufacturing machinery and allied products. This report on the agricultural-machinery industry is the first of the series.<sup>2</sup>

These data, which refer to February and March 1942, show that conversion to war production is not as yet far advanced in this industry. Conversion will be limited for the immediate present because of the obvious necessity for providing agriculture with adequate equipment. Information from 55 plants, employing a total of more than 12,000 wage earners, showed average hourly earnings of 84.1 cents for the industry and an average workweek of 40.8 hours. Hourly earnings in northern plants were, on the average, more than 26 cents above the rate for plants in the South. Size of plant exerted a marked influence on earnings; the workers in 25 plants, each employing 50 wage earners or less, received an average of 54.2 cents per hour as compared with 91.7 cents in 8 plants with more than 250 workers each. Wage differences between North and South were accentuated by the fact that the northern plants are of much larger average size.

Occupational earnings ranged from 51.2 cents per hour for molders' helpers to \$1.107 for skilled drop-hammer operators. Wide differences in the earnings in different occupational groups appear in the comparisons of plants of varying size and in different parts of the country.

### Plan of the Survey

This study of earnings in establishments manufacturing agricultural machinery is the first in a series included in a broad survey begun in March 1942 by the Bureau of Labor Statistics' Division of Wage Analysis. The principal purpose of this survey is to provide information on some of the effects of the present emergency upon the industries producing various types of machinery. It is generally known that the transition to a war economy has resulted in profound

<sup>1</sup> This survey was conducted by the Bureau of Labor Statistics' Division of Wage Analysis. The survey was directed and this report prepared by Harold R. Hosea with the assistance of Odie C. Clark and George E. Votava.

<sup>2</sup> Brief mimeographed reports on each of the industries studied will be released as the material becomes available. The first of these reports entitled "Survey of Machinery and Allied Industries: I. Agricultural Machinery," is now available on request to the Bureau. Others covering plants manufacturing textile machinery, mining machinery, oil-field machinery, construction machinery, and miscellaneous industrial machinery are in preparation.

changes in industrial products, technological processes, occupational patterns, and wage structures, but solution of the many economic and social problems involved requires more precise information on their nature.

The present survey was thus planned to supply a factual basis for measures looking toward wage adjustments, price control, and the conversion of facilities to the war effort and the necessary restrictions on production for civilian consumption. In addition to these immediate objectives, the data also throw light on the specific characteristics of occupational and wage structures in these industries as they have been affected by the impact of the present emergency.

Each of the industrial branches to be covered in this series of studies has been defined in terms of the principal products of the various plants during the year 1939. Thus, the agricultural-machinery industry is treated as consisting of the plants which were classified in that branch by the 1939 Census of Manufactures, the latest census available. Important changes in types are to be expected, especially because the war program has accentuated the shifts in production that would be expected over a 3-year period.

In the present case of agricultural-machinery plants, the changes in types of products happen to have been relatively unimportant up to the present time. Accordingly, the Census classification provides an adequate definition of the present-day industry.

In other machinery industries, to be covered in later reports, the changes in product have been very marked. A group of plants, classified as constituting an industrial branch in 1939, may be far from a homogeneous group at the present time. It is, nevertheless, useful to begin with the 1939 classification as a starting point. The data on changes in types of product within a former industry are, in themselves, highly significant. Where recent changes in product have had a marked effect on the wage structure, an attempt will be made to re-classify the establishments in each industry on a basis of their principal products at the present time.

According to the latest Census of Manufactures, there were 317 plants engaged primarily in the manufacture of agricultural machinery; these plants as a group employed an average of 27,806 wage earners during 1939. Of the 317 plants, 100 were employing 5 workers or less and were excluded from this survey. The establishments covered in this study constitute 25 percent of the remaining 217 plants reported by the Census. This sample of plants was selected as far as possible to be representative of the industry as a whole with respect to location, size in terms of wage earners, and corporate affiliation. In August 1939, the 55 plants covered by the survey employed 8,582 wage earners.

About half (28) of the 55 plants surveyed are in the East North Central region (Illinois, Indiana, Michigan, Ohio, and Wisconsin). Another 10 are west of the Mississippi River, 8 in the New England and Middle Atlantic regions, and 9 in the South (see table 2, page 1181). The geographic and size distribution of these 55 plants is essentially the same as that for the entire 217 reported in 1939 by the Census.

Of the 55 plants included in this survey, 25 employed 50 wage earners or fewer during the February or March pay-roll period selected for study. These plants account for less than 5 percent of the wage earners studied. The 22 plants with 51 to 250 wage earners apiece employed



a total of 3,270 workers or about 27 percent of all those included in the survey. The 8 comparatively large plants (251 or more workers apiece) employed 8,235 wage earners or more than two-thirds of the total.

The data for the present survey were collected by trained field representatives of the Bureau who visited the plants and analyzed pay rolls and other pertinent records. The detailed wage data on individual employees were limited to day-shift workers in certain occupational groups selected either because of their numerical importance or because they are key jobs. In general, however, occupational earnings rates were compiled for 80 to 90 percent of the wage earners employed on first (daylight) shifts. Most of the earnings data shown in this report are based on a representative pay-roll period during February-March 1942; in a few plants the period used fell wholly or partly in the latter part of January.

### *Characteristics of the Industry*

#### TYPES OF PRODUCT

The establishments classified by the Census of Manufactures in the agricultural-machinery industry include those "primarily engaged in the manufacture of agricultural machinery and equipment, except tractors, for use in the preparation or maintenance of the soil, the planting and harvesting of the crop, preparing crops for market or for use in other operations or processes pertaining to agriculture. The manufacture of agricultural hand tools is not included in this industry."

Conversion of facilities to war production appears not to have been a major factor in this industry thus far. A relatively high priority rating has been assigned by the War Production Board for the manufacture of certain types of farm machinery, and production of some forms of equipment during the year ending October 31, 1942, has been set at about 83 percent of the 1940 level with provision for 150 percent on replacement parts. It is likely that 1943 production of farm machinery will be substantially curtailed. The majority of the products (in terms of value) of the entire group of 55 plants consisted of agricultural machinery in 1940 and 1941. During the first 2 months of 1942, only 1 of the 55 plants reported more than 50 percent of its product as made up of war materials; this was a midwestern plant employing slightly more than 200 workers in February 1942. There were, however, 3 plants producing some war materials in 1941 and 5 were in this category during the first 2 months of 1942.

#### LABOR SUPPLY

Distributions of workers by skill class are available for 8,940 of the 12,095 workers in the plants surveyed. Of the 8,940 workers, about 26 percent may be regarded as skilled workers, 44 percent as semi-skilled, and the remaining 30 percent as unskilled. It is believed that inclusion of all workers in the plants surveyed would not greatly affect this estimate of distribution by skill class.

Male white workers predominate in this industry; only 282 (2.3 percent) of the workers in the 55 plants surveyed were Negroes, and all of these were employed in 16 plants. Negroes constituted from an eighth to a half of the employees of 5 southern plants. Outside the

South, Negroes did not exceed 7 percent of the total number of workers in any plant; in 6 plants there were 5 Negroes or less, and 39 reported none at all. Negro workers were employed principally as laborers, helpers, janitors, molders, and in other foundry jobs.

Women (exclusive of central-office personnel) were employed in but 7 plants. Of the 132 women reported, 121 were employed in 4 plants, principally as bench assemblers, coremakers, and packagers.

Of the 55 plants, 20 were operating under union agreements; in 16 of these plants the unions were affiliated with the A. F. of L. or the C. I. O., while 4 plants worked under contracts with independent unions. Only 1 of the 9 plants in the South reported a union agreement.

#### METHODS OF WAGE PAYMENT

Slightly less than half (48 percent) of the 8,940 workers for whom earnings rates were compiled were paid on a straight-time basis; the remaining 52 percent were paid on the basis of piece-work or production-bonus systems.

Overtime at the rate of time and a half for work above 40 hours per week was paid in all of the 55 plants studied. In 19 plants this penalty rate also applied to any work over 8 hours per day, and 1 plant reported a daily limit of 9 hours at regular rates. Six plants paid double time for all Sunday work, and 1 applied this rate to any Sunday work above 5 hours. One plant also paid double time for all work above 11 hours per day and/or 56 hours per week.

Five of the 55 plants paid a 5-percent differential for second-shift (evening) work. Four establishments reported a 5-cent and 2 a 3-cent differential, 1 paid 25 cents additional for each 8 hours of evening work, and 2 plants paid 2.5 and 4 cents per hour extra, respectively, for evening work. Of the total, 41 plants either paid no premiums for evening work or reported that they were operating but 1 shift. Only 8 of the 55 plants reported differential rates for third-shift (night) work. Four of the 8 paid an additional 5 cents per hour, and, of the other 4, 1 each paid respectively, 5 percent, 10 percent, 50 cents extra for each 8 hours, and a bonus of a half-hour's earnings.

#### *Trend of Employment, Hours, and Hourly Earnings, 1939-42*

The 55 plants included in this survey employed a total of 8,582 wage earners during a representative pay-roll period in August 1939; the average employment per plant was 156 (table 1). These same plants

TABLE 1.—*Employment, Average Hourly Earnings, and Average Weekly Hours of Workers in 55 Agricultural-Machinery Plants in Selected Periods, 1939-42*

Year and month	Total wage earners	Average wage earners per plant	Average hourly earnings	Estimated average hourly earnings, exclusive of penalty overtime earnings	Average weekly hours
August 1939.....	8,582	156	\$0.608	\$0.686	38.1
April 1940.....	10,697	194	.727	.713	38.6
August 1940.....	10,224	186	.719	.705	38.5
February 1941.....	11,813	215	.751	.731	39.7
August 1941.....	12,453	226	.823	.799	40.3
February and March 1942.....	12,095	220	.841	.814	40.8

employed 12,095 workers, or an average of 220 per plant, during the pay-roll period (February or March 1942) on which the present survey is based. The small decrease in employment shown in the period between April and August 1940 was probably seasonal. The decrease between August 1941 and February and March 1942 is too small to be highly significant, although the change is in the opposite direction to the usual seasonal movement. There are, however, some indications that material and skilled-labor shortages may have been involved.

The average weekly hours worked in these plants increased from 38.1 in August 1939 to 40.8 in February-March 1942. Except for the slight decrease between April and August 1940, which again was probably seasonal, average weekly hours show a gradual but steady rise.

Average hourly earnings, including amounts received on account of penalty overtime payments, rose from 69.8 cents in August 1939 to 84.1 cents in February-March 1942. As in the case of average weekly hours, the trend of hourly earnings has been steadily upward except for the interval April-August 1940. It is believed that these average hourly earnings rates are inflated from 1.2 to 2.7 cents by the inclusion of penalty overtime payments. Estimated average hourly earnings exclusive of these amounts rose from 68.6 cents for August 1939 to 81.4 cents during February-March 1942.

### *Hourly Earnings and Weekly Hours of Work, February-March 1942*

Average hourly earnings of the entire 12,095 workers studied amounted to 84.1 cents during February or March 1942. Workers in the 28 plants in the East North Central region received the highest average—87.6 cents per hour. The averages for the two other northern regions were 80.1 and 83.7 cents, respectively (table 2). Hourly earnings in the 9 southern plants averaged 59.9 cents.

Plant average hourly earnings in slightly less than half (24) of the 55 establishments surveyed averaged between 55 and 80 cents. In but 5 plants were the average earnings 90 cents or more per hour.

TABLE 2.—*Distribution of Agricultural-Machinery Plants by Plant Average Hourly Earnings and by Region, February-March 1942*

Plant average hourly earnings	All States	East North Central States	West Central and Pacific States	New England and Middle Atlantic States	Southern States
Under 40.0 cents.....	3				3
40.0 and under 50.0 cents.....	7	3	1	2	1
50.0 and under 55.0 cents.....	7	3	3		1
55.0 and under 60.0 cents.....	7	4		1	2
60.0 and under 65.0 cents.....	8	5	1	1	1
65.0 and under 70.0 cents.....	4	2	1	1	
70.0 and under 80.0 cents.....	5	2	1	1	1
80.0 and under 90.0 cents.....	9	4	3	2	
90.0 cents and over.....	5	5			
Total.....	55	28	10	8	9
Total workers.....	12,095	8,405	1,382	1,342	966
Average workers per plant.....	220	300	138	168	107
Average hourly earnings.....	\$0.841	\$0.876	\$0.801	\$0.837	\$0.599



At the other extreme were 3 plants, all in the South, with average hourly earnings below 40 cents.

Wide variations in plant average earnings were found in establishments of different sizes. The workers in the 25 plants employing 50 wage earners or less received an average of 54.2 cents per hour as compared with 91.7 cents earned by the 8,235 employees of the 8 largest plants studied (table 3).

TABLE 3.—Average Hourly Earnings of Agricultural-Machinery Workers, by Size of Plant and Region, February–March 1942

Plant size (wage earners)	United States			Northern States			Southern States		
	Number of plants	Number of workers	Average hourly earnings	Number of plants	Number of workers	Average hourly earnings	Number of plants	Number of workers	Average hourly earnings
All plants.....	55	12,095	\$0.841	46	11,129	\$0.862	9	966	\$0.599
50 workers or under.....	25	500	.542	20	432	.577	5	158	.449
51-250 workers.....	122	3,270	.704	18	2,462	.730	14	808	.628
251 workers and over.....	8	8,235	.917	8	8,235	.917			

<sup>1</sup> Includes 1 plant in size group 251 and over.

As already noted, southern workers received about 26 cents less per hour, on the average, than northern workers. Part of this difference is obviously a result of the differences in size of plant; the southern plants are little more than a third the size of those in the East North Central region. Comparison of northern and southern plants within the same size groups reduces the regional difference to about 13 cents for small plants and approximately 10 cents for plants in the intermediate size group.

#### OCCUPATIONAL DIFFERENCES IN AVERAGE HOURLY EARNINGS

The average hourly earnings of male workers in the occupations selected for study ranged from 51.2 cents for molders' helpers to \$1.107 for class A drop-hammer operators when the entire 55 plants studied are considered as a group (table 4). Fourteen occupational groups, which included approximately 11 percent of all the male workers, showed hourly earnings in excess of \$1.00. About 8 percent (754) of the workers, distributed among 5 occupational groups, were in occupations paying less than 60 cents an hour; one of these groups consisted of woman assemblers, class C.

The separate rates shown for different classes of workers within an occupational group are based upon an attempt in each case to determine the nature of the workers' duties in terms of the degrees and types of skill required and the amount of responsibility attached to the jobs. While earnings rates are naturally correlated with these grade classifications, they have not been used as the principal basis for determining them. The criteria for judging skill classes have been applied uniformly among the various plants studied as far as it is possible to do so. The wage-rate structure or earnings level within a plant was not used as a basis for determining skill class. A turret-lathe operator, for example, was reported as a class B worker if his current job conformed

to the general criteria established for this class; the fact that one such operator in a high-wage plant might receive 15 cents per hour more than an employee doing a similar grade of work in a lower wage plant was not taken into consideration. The occupational classes A, B, and C shown in this report are, in general, comparable with the concepts of skilled, semiskilled and unskilled workers, respectively. However, the popular interpretation of skill classes varies considerably from industry to industry and among different plants. The present classifications represent an attempt to apply uniform standards.

TABLE 4.—Average Hourly Earnings on Daylight Shift in Selected Occupations in Agricultural-Machinery Plants, February-March 1942

Occupation and class	United States		Northern States		Southern States	
	Num-ber of workers	Aver-age hourly earnings <sup>1</sup>	Num-ber of workers	Aver-age hourly earnings <sup>1</sup>	Num-ber of workers	Aver-age hourly earnings <sup>1</sup>
<b>Male workers:</b>						
Acetylene-burner operators.....	4	( <sup>2</sup> )	4	( <sup>2</sup> )		
Apprentices.....	65	\$0.625	59	\$0.625	6	( <sup>2</sup> )
Assemblers, bench, class A.....	111	.986	99	.996	12	\$0.898
Assemblers, bench, class B.....	456	.852	402	.867	54	.740
Assemblers, bench, class C.....	550	.783	499	.817	51	.455
Assemblers, floor.....	382	.891	366	.910	16	.448
Blacksmiths.....	76	.832	73	.838	3	( <sup>2</sup> )
Boring-mill operators, class A.....	4	( <sup>2</sup> )	4	( <sup>2</sup> )		
Boring-mill operators, class B.....	23	.831	21	.850	2	( <sup>2</sup> )
Broaching-machine operators.....	11	.909	11	.909		
Buffers.....	96	1.082	87	1.096	9	( <sup>2</sup> )
Bulldozer operators.....	129	.944	117	.975	12	.638
Carpenters, class A.....	14	.879	14	.879		
Carpenters, class B.....	32	.774	31	.776	1	( <sup>2</sup> )
Carpenters, class C.....	6	( <sup>2</sup> )	5	( <sup>2</sup> )	1	( <sup>2</sup> )
Carpenters, flask.....	11	.819	11	.819		
Casting cleaners.....	169	.790	151	.832	18	.442
Chippers, class B.....	22	1.053	22	1.053		
Chippers, class C.....	45	.859	45	.859		
Core pasters.....	5	( <sup>2</sup> )	3	( <sup>2</sup> )	2	( <sup>2</sup> )
Coremakers, class A.....	5	.995	71	1.031	9	( <sup>2</sup> )
Coremakers, class B.....	45	.887	45	.887		
Coremakers' helpers.....	31	.653	28	.668	3	( <sup>2</sup> )
Crane followers.....	3	( <sup>2</sup> )	3	( <sup>2</sup> )		
Crane operators.....	26	.804	26	.804		
Craters.....	18	.844	18	.844		
Cupola tenders.....	24	.657	23	.667	1	( <sup>2</sup> )
Cupola tenders' helpers.....	21	.714	16	.766	5	( <sup>2</sup> )
Die setters.....	19	.847	18	.849	1	( <sup>2</sup> )
Drill-press operators, class A.....	28	.888	24	.899	4	( <sup>2</sup> )
Drill-press operators, class B.....	199	.821	181	.849	18	.544
Drill-press operators, class C.....	159	.729	154	.737	5	( <sup>2</sup> )
Drop-hammer operators, class A.....	71	1.107	62	1.148	9	( <sup>2</sup> )
Drop-hammer operators, class B.....	62	.870	50	.955	12	.515
Electricians.....	28	.983	27	.978	1	( <sup>2</sup> )
Elevator operators.....	28	.681	27	.690	1	( <sup>2</sup> )
Firemen, stationary boiler.....	65	.676	59	.698	6	( <sup>2</sup> )
Flask and pattern carriers.....	14	.774	14	.774		
Foremen, working, class A.....	71	1.013	41	.935	30	1.120
Foremen, working, class B.....	80	.903	65	.920	15	.831
Foremen, working, class C.....	48	.810	38	.836	10	.713
Gear cutters, class B.....	3	( <sup>2</sup> )	3	( <sup>2</sup> )		
Grinding-machine operators, class A.....	42	1.064	38	1.080	4	( <sup>2</sup> )
Grinding-machine operators, class B.....	134	.721	130	.724	4	( <sup>2</sup> )
Grinding-machine operators, class C.....	7	( <sup>2</sup> )	3	( <sup>2</sup> )	4	( <sup>2</sup> )
Hammersmiths.....	3	( <sup>2</sup> )	2	( <sup>2</sup> )	1	( <sup>2</sup> )
Heat treaters, class A.....	26	1.082	24	1.096	2	( <sup>2</sup> )
Heat treaters, class B.....	35	.978	32	1.010	3	( <sup>2</sup> )
Helpers, journeymen's.....	131	.633	102	.691	29	.427
Helpers, machine operators'.....	199	.625	168	.649	31	.492
Inspectors, class A.....	38	.937	37	.932	1	( <sup>2</sup> )
Inspectors, class B.....	82	.833	78	.840	4	( <sup>2</sup> )
Inspectors, class C.....	79	.791	74	.811	5	( <sup>2</sup> )
Janitors.....	123	.622	118	.635	5	( <sup>2</sup> )
Job setters.....	13	.924	13	.924		

See footnotes at end of table.

TABLE 4.—Average Hourly Earnings on Daylight Shift in Selected Occupations in Agricultural-Machinery Plants, February–March 1942—Continued

Occupation and class	United States		Northern States		Southern States	
	Number of workers	Average hourly earnings <sup>1</sup>	Number of workers	Average hourly earnings <sup>1</sup>	Number of workers	Average hourly earnings <sup>1</sup>
<b>Male workers—Continued.</b>						
Laborers.....	519	\$0.593	419	\$0.641	100	\$0.391
Laborers, foundry.....	176	.693	173	.696	3	( <sup>2</sup> )
Ladle liners.....	10	.781	10	.781		
Lathe operators, engine, class A.....	48	.926	48	.926		
Lathe operators, engine, class B.....	69	.764	63	.790	6	( <sup>2</sup> )
Lathe operators, engine, class C.....	4	( <sup>2</sup> )	4	( <sup>2</sup> )		
Lathe operators, turret, class A.....	24	.974	22	.986	2	( <sup>2</sup> )
Lathe operators, turret, class B.....	92	.899	88	.916	4	( <sup>2</sup> )
Lathe operators, turret, class C.....	5	( <sup>2</sup> )	5	( <sup>2</sup> )		
Lay-out men, class A.....	11	.950	10	.993	1	( <sup>2</sup> )
Lay-out men, class B.....	17	.862	17	.862		
Learners, journeymen.....	13	.585	13	.585		
Learners, machine operators and other.....	43	.636	43	.636		
Machinists.....	84	.919	82	.917	2	( <sup>2</sup> )
Metal-saw operators.....	11	.894	11	.894		
Milling-machine operators, class A.....	17	1.027	17	1.027		
Milling-machine operators, class B.....	27	.903	24	.924	3	( <sup>2</sup> )
Millwrights.....	73	.929	73	.929		
Molders, bench.....	147	.883	91	.962	56	.755
Molders, floor.....	94	.907	70	.894	24	.943
Molders' helpers.....	83	.512	37	.659	46	.393
Molders, machine, class A.....	215	1.067	206	1.062	9	( <sup>2</sup> )
Molders, machine, class B.....	194	.953	191	.955	3	( <sup>2</sup> )
Packers.....	115	.722	104	.739	11	( <sup>2</sup> )
Painters, brush.....	55	.741	55	.741		
Painters, dip.....	89	.786	80	.822	9	( <sup>2</sup> )
Painters, spray.....	62	.838	57	.846	5	( <sup>2</sup> )
Patternmakers, metal.....	72	.992	67	1.009	5	( <sup>2</sup> )
Patternmakers, wood.....	58	.980	51	.996	7	( <sup>2</sup> )
Pipe fitters.....	26	.912	25	.920	1	( <sup>2</sup> )
Planer operators.....	12	.841	11	.888	1	( <sup>2</sup> )
Power shear operators.....	119	.907	107	.937	12	( <sup>2</sup> )
Pourers, class B.....	15	1.002	15	1.002		
Punch-press operators, class A.....	28	.985	25	.995	3	( <sup>2</sup> )
Punch-press operators, class B.....	270	.842	266	.853	13	.628
Punch-press operators, class C.....	101	.653	94	.657	7	( <sup>2</sup> )
Repairmen, machine.....	33	.858	33	.858		
Repairmen, product, class B.....	4	( <sup>2</sup> )	2	( <sup>2</sup> )	2	( <sup>2</sup> )
Repairmen, product, class C.....	3	( <sup>2</sup> )	3	( <sup>2</sup> )		
Riveters, pneumatic.....	31	.887	30	.900	1	( <sup>2</sup> )
Sand mixers, hand.....	6	( <sup>2</sup> )	6	( <sup>2</sup> )		
Sand mixers, machine.....	11	.810	11	.810		
Sandblasters.....	7	( <sup>2</sup> )	6	( <sup>2</sup> )	1	( <sup>2</sup> )
Screw-machine operators, class A.....	12	1.098	11	1.116	1	( <sup>2</sup> )
Screw-machine operators, class B.....	3	( <sup>2</sup> )	2	( <sup>2</sup> )	1	( <sup>2</sup> )
Shake-out men.....	98	.878	89	.893	9	( <sup>2</sup> )
Shaper operators.....	12	.898	12	.898		
Sheet-metal operators, class A.....	31	.860	31	.860		
Sheet-metal operators, class B.....	56	.760	56	.760		
Stock clerks.....	200	.729	179	.744	21	.594
Straighteners.....	15	.905	15	.905		
Testers, class B.....	5	( <sup>2</sup> )	5	( <sup>2</sup> )		
Testers, class C.....	3	( <sup>2</sup> )	2	( <sup>2</sup> )	1	( <sup>2</sup> )
Thread-milling machine operators.....	19	.858	19	.858		
Time clerks.....	87	.635	77	.644	10	( <sup>2</sup> )
Tool and die makers.....	138	1.003	133	1.006	5	( <sup>2</sup> )
Tool-grinder operators.....	12	.873	12	.873		
Truckers, hand.....	208	.664	200	.676	8	( <sup>2</sup> )
Truckers, power, inside.....	71	.789	65	.801	6	( <sup>2</sup> )
Truck drivers.....	39	.714	35	.746	4	( <sup>2</sup> )
Tumbler operators.....	31	.821	31	.821		
Upsetters.....	18	1.036	18	1.036		
Watchmen.....	101	.595	90	.615	11	.436
Welders, hand.....	141	1.050	139	1.055	2	( <sup>2</sup> )
Welders, machine.....	89	1.018	82	1.060	7	( <sup>2</sup> )
Woodworkers.....	139	.725	101	.813	38	.490
<b>Female workers:</b>						
Assemblers, bench, class C.....	38	.584	38	.584		
Packers.....	6	( <sup>2</sup> )	6	( <sup>2</sup> )		
Coremakers, class B.....	20	( <sup>2</sup> )	20	( <sup>2</sup> )		

<sup>1</sup> Averages are based on actual earnings exclusive of penalty overtime payments<sup>2</sup> Number of plants and/or workers too small to justify computation of an average; data on numbers of workers are included in such cases to provide additional information on occupational distribution.



The numbers of workers classified in the several occupational groups are too small to justify detailed comparisons on a regional basis. In certain occupations, however, there are sufficient data to emphasize the differences between northern and southern plants. Of the 7,981 workers in northern plants for whom earnings are shown, 12.8 percent, are distributed among the 16 occupational groups which show averages above \$1 per hour; in the southern plants one group including only 30 workers, or 4.9 percent of the total for whom adequate data are available, received as much as \$1 per hour; all of these were class A working foremen, one of the two occupational groups for which the southern exceeded the northern average. It is unlikely, however, that this isolated case is significant. The majority of the large (and high-wage) plants are in the North. In many such plants, foremen are assigned exclusively to supervisory work and were, therefore, omitted from the survey by definition. In the South, where smaller plants predominate, the foreman frequently combines his supervisory duties with some sort of skilled work; such workers were included in the study. This comparison thus reflects differences in plant organization rather than wage-rate variation.

The higher rate earned by floor molders in the South appears to be the result of a difference in the division of labor between these workers and their helpers. It will be noted that the smaller southern plants show a much higher ratio of helpers to molders than do the northern plants; further, the helpers in the southern plants receive far lower rates than those current in the generally larger northern plants.

Only 2 occupational groups, including less than 1 percent of the workers in northern plants, earned less than 60 cents per hour on the average; 12 occupational categories, which included two-thirds of the total workers in the South for whom comparable data are available, showed earnings below 60 cents per hour.

Just as average earnings for plants tend to vary significantly in relation to the number of workers employed, it is apparent that occupational rates also reflect differences in size of plant. In order to compare occupational rates in large and small plants, it is obviously desirable to eliminate any regional wage differences as far as possible. The data shown in table 5 are, therefore, limited to the 28 plants in the East North Central region.

The numbers of workers in many of the occupational groups are insufficient to permit any reliable comparison of rates within this region. There are, however, 11 groups which are believed to be adequate for this purpose. In all of these occupations the average earnings of workers in plants with fewer than 100 wage earners are substantially lower than the rates in establishments with 100 or more workers. The differences range from 13 cents per hour for class A floor assemblers to 48 cents for class C bench assemblers. In all but 3 of the 11 occupational groups for which comparisons are possible, the differences amount to more than 25 cents per hour. For class A and class B bench assemblers, class B engine-lathe operators, and class B grinding-machine operators the differences in average rates per hour are not less than 30 cents. The differences are, in general, somewhat larger in occupational groups in which piece rates are common in the larger plants.

Even when the plants employing more than 1,000 workers are excluded, the same general tendency is apparent. In all but 1 of the

11 occupational groups, the average rates in plants employing between 100 and 1,000 workers are greater than in plants employing less than 100 workers. The margin of difference in average rates ranges from 1 cent for class B drill-press operators to 34 cents for class C bench assemblers.

Further evidence of the relationship between plant size and occupational rates is demonstrated by the fact that the exclusion of plants employing over 1,000 workers lowered the average rates for the larger plants in each of the occupational groups compared.

TABLE 5.—Average Hourly Earnings of Agricultural-Machinery Workers in East North Central Region, by Occupation and Size of Plant, February–March 1942

Occupation and class	Plants employing—					
	100 or more workers				Less than 100 workers	
	Total		100 to 1,000 workers			
	Num-ber of workers	Aver-age hourly earnings	Num-ber of workers	Aver-age hourly earnings	Num-ber of workers	Aver-age hourly earnings
Bench assemblers, class A.....	65	\$1.08	13	\$0.83	7	\$0.75
Bench assemblers, class B.....	263	.92	63	.70	33	.61
Bench assemblers, class C.....	395	.88	136	.74	16	.40
Floor assemblers, class A.....	22	.86	14	.81	11	.73
Drill-press operators, class B.....	144	.90	20	.63	21	.62
Engine-lathe operators, class B.....	32	.92	18	.70	13	.59
Grinding-machine operators, class B.....	79	.82	33	.63	24	.50
Laborers.....	323	.65	131	.48	15	.42
Packers.....	60	.78	35	.69	12	.52
Turret-lathe operators, class B.....	56	.96	17	.84	8	.69
Watchmen.....	45	.68	11	.54	18	.45

## WAGE-RATE CHANGES IN UNITED STATES INDUSTRIES

THE following table gives information concerning wage-rate adjustments occurring during the month ending February 15, 1942, as shown by reports received from manufacturing and nonmanufacturing establishments which supply employment data to the Bureau of Labor Statistics.

As the Bureau's survey does not cover all establishments in an industry and, furthermore, as some firms may have failed to report wage-rate changes, these figures should not be construed as representing the total number of wage changes occurring in manufacturing and nonmanufacturing industries.

*Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments  
During Month Ending February 15, 1942<sup>1</sup>*

Group and industry	Establishments		Employees		Average percentage change in wage rates of employees having increases
	Total number covered	Number reporting increases	Total number covered	Number receiving increases	
All manufacturing.....	34,065	7477	7,999,220	151,709	7.9
Durable goods.....	12,967	3667	4,573,867	96,533	8.0
Nondurable goods.....	21,098	3810	3,425,353	55,176	7.8
Iron and steel and their products, not including machinery.....	2,595	77	1,146,489	19,571	6.8
Blast furnaces, steel works, and rolling mills.....	331	7	578,779	4,263	6.4
Bolts, nuts, washers, and rivets.....	67	3	19,008	351	6.8
Forgings, iron and steel.....	103	4	23,296	731	4.9
Hardware.....	154	5	41,871	2,566	5.1
Plumbers' supplies.....	105	7	26,137	1,517	5.5
Stamped and enameled ware.....	249	9	45,830	2,363	6.1
Steam and hot-water heating apparatus and steam fittings.....	118	4	47,434	1,556	8.7
Stoves.....	245	8	35,589	289	8.7
Structural and ornamental metalwork.....	299	9	36,333	1,870	10.2
Tin cans and other tinware.....	115	3	31,623	770	9.1
Tools (not including edge tools, machine tools, files, and saws).....	127	7	20,402	1,690	5.1
Screw-machine products.....	90	4	27,053	214	6.9
Machinery, not including transportation equipment.....	3,925	144	1,363,818	27,127	6.9
Agricultural implements (including tractors).....	111	6	68,235	420	5.6
Electrical machinery, apparatus, and supplies.....	616	19	( <sup>2</sup> )	4,301	7.2
Engines, turbines, water wheels, and windmills.....	87	7	( <sup>2</sup> )	3,016	4.3
Foundry and machine-shop products.....	2,285	83	442,550	13,664	7.0
Machine tools.....	184	6	( <sup>2</sup> )	926	9.0
Radios and phonographs.....	83	5	62,968	2,019	7.8
Textile machinery and parts.....	123	4	22,441	58	10.5
Machine-tool accessories.....	124	7	( <sup>2</sup> )	1,063	7.1
Transportation equipment.....	893	18	1,176,515	11,284	13.8
Aircraft.....	133	3	( <sup>2</sup> )	851	9.6
Automobiles.....	399	8	334,667	2,900	11.8
Shipbuilding.....	251	5	( <sup>2</sup> )	4,811	21.2
Nonferrous metals and their products.....	1,124	35	291,876	11,479	6.7
Aluminum manufactures.....	53	3	( <sup>2</sup> )	1,057	7.2
Brass, bronze, and copper products.....	357	15	( <sup>2</sup> )	7,822	6.3
Sheet-metal work.....	144	5	8,365	339	9.9
Smelting and refining of scrap metal.....	31	3	4,119	404	8.4
Nonferrous metals and products, not elsewhere classified.....	67	3	22,523	408	9.3
Lumber and allied products.....	2,844	54	363,800	8,390	7.5
Furniture.....	751	6	115,240	627	6.6
Lumber:					
Millwork.....	560	16	38,834	2,372	7.4
Sawmills.....	736	14	138,901	4,603	7.0
Wood turned and shaped.....	95	3	7,837	307	12.3
Wooden boxes, other than cigar.....	146	5	15,283	239	9.4
Mattresses and bed springs.....	205	4	11,640	64	9.0
Lumber and allied products, not elsewhere classified.....	184	4	21,362	164	12.5
Stone, clay, and glass products.....	1,586	38	231,369	13,682	8.4
Pottery.....	132	21	33,884	11,978	9.3
Abrasive wheels.....	24	3	8,373	3,647	5.3
Stone, clay, and glass products not elsewhere classified.....	52	3	7,578	323	5.8
Textiles and their products.....	6,774	65	1,441,765	10,225	7.3
Fabrics.....	3,449	37	1,039,606	6,788	8.2
Cotton goods.....	832	5	461,088	1,559	6.4
Hosiery.....	511	5	111,184	604	7.2
Silk and rayon goods.....	467	8	77,757	1,166	10.7
Woolen and worsted goods.....	419	4	163,204	759	9.3
Wearing apparel.....	3,325	28	402,159	3,437	5.5
Men's clothing.....	1,111	3	160,328	1,009	4.3
Women's clothing.....	1,178	6	93,143	378	5.3
Millinery.....	154	5	9,596	176	8.4
Textiles not elsewhere classified.....	370	8	45,985	874	4.8

See footnotes at end of table.



**Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments  
During Month Ending February 15, 1942<sup>1</sup>—Continued**

Group and industry	Establishments		Employees		Average percent- age change in wage rates of employ- ees hav- ing in- creases
	Total number covered	Num- ber re- porting in- creases	Total number covered	Number receiving increases	
Leather and its manufactures.....	1,052	16	240,484	3,294	6.1
Leather.....	181	8	41,562	1,816	6.2
Boot and shoe cut stock and findings.....	122	3	10,654	137	4.6
Food and kindred products.....	5,235	114	482,269	10,978	10.7
Baking.....	1,025	7	81,959	520	9.9
Beverages.....	611	6	42,052	902	10.3
Butter.....	318	3	5,569	30	13.9
Canning and preserving.....	1,072	54	71,934	4,282	15.1
Confectionery.....	275	7	38,841	1,959	8.7
Flour.....	335	12	15,075	1,106	4.7
Ice cream.....	267	6	8,614	149	10.3
Slaughtering and meat packing.....	332	5	141,849	478	7.9
Food not elsewhere classified.....	656	13	38,547	1,490	11.1
Tobacco manufactures.....	221	2	72,081	1,509	7.3
Paper and printing.....	3,966	108	401,289	13,701	6.8
Boxes, paper.....	666	13	51,627	1,813	5.9
Paper and pulp.....	421	25	138,694	6,497	7.7
Printing and publishing:					
Book and job.....	1,526	31	79,219	910	7.2
Newspapers and periodicals.....	743	12	62,282	701	5.3
Envelopes.....	61	12	6,500	2,345	5.1
Paper goods not elsewhere classified.....	150	6	25,415	814	8.9
Lithographing.....	89	4	8,408	148	6.1
Chemical, petroleum, and coal products.....	2,477	44	444,938	6,814	8.4
Chemicals.....	253	6	89,917	1,476	6.7
Druggists' preparations.....	91	5	15,190	287	20.3
Fertilizers.....	331	4	20,910	938	9.6
Paints and varnishes.....	503	13	25,048	628	9.5
Chemicals not elsewhere classified.....	234	8	22,035	406	8.8
Rubber products.....	276	8	133,534	4,149	4.9
Rubber goods, other.....	221	8	52,552	4,149	4.9
Miscellaneous.....	1,097	24	208,993	4,506	7.7
Buttons.....	56	3	6,534	108	11.8
Instruments—professional, scientific, and com- mercial.....	76	3	( <sup>2</sup> )	1,208	10.7
Miscellaneous industries not elsewhere classified.....	630	12	62,197	1,360	5.3
All nonmanufacturing (except building construc- tion).....	<sup>3</sup> 86,200	557	<sup>3</sup> 2,944,700	20,386	6.5
Metalliferous mining.....	<sup>3</sup> 380	10	<sup>3</sup> 76,000	4,173	4.8
Quarrying and nonmetallic mining.....	<sup>3</sup> 1,090	6	<sup>3</sup> 38,800	218	8.7
Public utilities:					
Telephone and telegraph.....	<sup>3</sup> 9,680	224	<sup>3</sup> 338,200	9,551	7.0
Electric light and power.....	<sup>3</sup> 2,750	54	<sup>3</sup> 212,500	1,324	4.7
Street railways and busses.....	<sup>3</sup> 340	8	<sup>3</sup> 132,700	440	11.7
Trade:					
Wholesale.....	<sup>3</sup> 14,190	94	<sup>3</sup> 343,900	1,837	7.8
Retail.....	<sup>3</sup> 47,640	131	<sup>3</sup> 972,700	737	8.6
Hotels (year-round).....	<sup>3</sup> 1,860	12	<sup>3</sup> 138,400	197	15.0
Laundries.....	<sup>3</sup> 1,230	5	<sup>3</sup> 81,400	261	8.9
Dyeing and cleaning.....	<sup>3</sup> 830	4	<sup>3</sup> 17,400	94	6.8
Insurance.....	<sup>3</sup> 2,600	5	<sup>3</sup> 124,600	60	9.4

<sup>1</sup> Figures are not given for some industries to avoid disclosure of information concerning individual establishments. They are, however, included where practicable in "all manufacturing," and in the various industry groups. No decreases reported.

<sup>2</sup> Included in group totals but not available for publication separately.

<sup>3</sup> Approximate—based on previous month's sample.

# Wage and Hour Regulation

## MINIMUM RATES UNDER FAIR LABOR STANDARDS AND PUBLIC CONTRACTS ACTS

### *40-Cent Minimum for Property Motor Carriers*

EMPLOYEES in the property motor carrier industry are entitled to a 40-cent hourly minimum wage, by order of the Administrator of the Fair Labor Standards Act.<sup>1</sup> That rate became effective on March 16, 1942. For the purpose of the order the property motor carrier industry covers all occupations in the industry, including clerical, maintenance, shipping, and selling occupations.

### *40- and 50-Cent Wage for Chemical and Related Products Industry<sup>2</sup>*

The prevailing minimum wage to be applicable on all contracts for chemicals and related products subject to the Public Contracts Act, bids for which are solicited or negotiations otherwise commenced on and after April 28, 1942, has been set at 40 or 50 cents an hour, according to geographic area, by determination of the Secretary of Labor. In Maryland, Virginia, North Carolina, South Carolina, Tennessee, Arkansas, Mississippi, Alabama, Georgia, Florida, and the District of Columbia, the rate established is 40 cents an hour or \$16 per week of 40 hours, arrived at upon either a time or a piece-work basis. Elsewhere the 50-cent hourly rate and \$20 weekly rate for 40 hours of work apply.

### *40-Cent Rate for Knitted Outerwear Industry<sup>3</sup>*

A wage order establishing a 40-cent an hour minimum wage in the knitted-outerwear industry became effective on April 20, 1942, by order of the Administrator of the Fair Labor Standards Act. The order also restricts home work after November 30, 1942. This is the second time an order has been promulgated for the knitted-outerwear industry, a 35-cent rate having been established effective July 1, 1940.<sup>4</sup> Approximately 6,000 of the 23,500 workers in the industry will receive direct wage increases as a result of the 40-cent minimum.

### *36-Cent Rate for Seamless-Hosiery Industry*

A rate of 36 cents an hour, or \$14.40 for 40 hours, has been declared to be the prevailing minimum wage to be paid employees engaged in

<sup>1</sup> Federal Register (Washington), February 14, 1942 (p. 994).

<sup>2</sup> Idem, April 1, 1942 (p. 2514).

<sup>3</sup> U. S. Department of Labor. Wage and Hour Division. Press release No. R. 1700.

<sup>4</sup> See Monthly Labor Review, September 1940 (p. 554).

producing seamless hosiery for Government contracts, under a determination issued by the Secretary of Labor effective on March 30, 1942.<sup>5</sup> This change was made following the issuance of a wage order establishing the 36-cent rate under the Fair Labor Standards Act. By an earlier determination of the Secretary of Labor, effective August 2, 1937, the prevailing minimum under the Public Contracts Act was 35 cents hourly.<sup>6</sup>

### *40-Cent Hourly Wage for Textile Industry*

An order of the Administrator of the Fair Labor Standards Act established a minimum wage of 40 cents an hour in the textile industry, effective April 20, 1942.<sup>7</sup> The 40-cent rate is the highest that may be fixed under the wage-order procedure. It supersedes a 37½-cent minimum effective June 30, 1941. The original wage order for the industry established a 32½-cent wage as of October 24, 1939.<sup>8</sup>

### *20-Cent Wage for Railroads and Property Carriers in Puerto Rico*

Employees in the railroad and property-carrier industry of Puerto Rico are entitled to a minimum wage of 20 cents an hour, effective April 7, 1942, under the terms of a wage order issued by the Administrator of the Fair Labor Standards Act.<sup>9</sup> The industry is defined as any railroad carrier under public franchise which engages in the transportation of passengers and property in commerce which receives not less than \$25,000 annually for passenger transportation or which derives at least 10 percent of its total operating revenues from such service, and any railway express company and any trucking firm or company which engages in the transportation of property in commerce or of property necessary to the production of goods for commerce. The order does not cover carriers directly or indirectly owned or controlled by a company primarily engaged in manufacturing, processing, wholesaling or other nontransportation activity, or performing any transportation functions for such a company.

## OPERATIONS UNDER FAIR LABOR STANDARDS ACT, 1941

MORE than 12 percent of all establishments believed to be subject to the wage and hour law were inspected in the fiscal year 1941 to secure compliance with its terms, and many thousands of those not visited are known to be paying average wages much higher than the minimum required by the terms of the statute. Many industries also comply with the hours standards, either voluntarily, as a matter of custom, or in conformity with collective agreements. Therefore, in the annual report of the Wage and Hour Division of the Department of Labor for the fiscal year ended June 30, 1941,<sup>10</sup> the view

<sup>5</sup> U. S. Department of Labor. Division of Public Contracts. Press Release No. 131-42, dated March 12, 1942.

<sup>6</sup> See Monthly Labor Review, September 1941 (p. 715), and October 1940 (p. 810).

<sup>7</sup> Federal Register (Washington), April 4, 1942 (pp. 2394-2395).

<sup>8</sup> See Monthly Labor Review for September 1940 (p. 554) and July 1941 (p. 170).

<sup>9</sup> Federal Register (Washington) April 7, 1942 (p. 2615).

<sup>10</sup> U. S. Department of Labor. Wage and Hour Division. Annual Report for the Year Ended June 30, 1941. Washington, 1942.



is expressed that the objectives sought were attained to a large extent during the year.

Since 1938, when the wage and hour law was enacted, economic conditions have changed greatly. At that time a large proportion of the working population was unemployed and wage rates were at a low level. Substantial gains in employment occurred subsequently, and when the report under review was prepared, labor shortages were developing in some industries, although there was still some unemployment. Cost of living mounted, and though it was accompanied by a substantial number of wage increases, many unorganized workers failed to share in these wage rises. For them the statutory wage of 30 cents an hour would yield \$624 annually if they worked 40 hours weekly for 52 weeks, and the highest minimum contemplated under the law—40 cents hourly—would yield \$832 on the same full-time basis.

Twelve orders raising wages above the statutory minimum of 30 cents an hour became effective during the year. These orders and the five affecting wages in Puerto Rico, together with six that were previously issued, brought direct wage increases to more than 700,000 workers. Recommendations by wage committees, pending at the end of the fiscal year, if put into effect, would bring the total receiving wage increases to over 1,000,000. By June 30, 1941, committees had been appointed to investigate and make recommendations relating to minimum rates of pay for practically all lower paid branches of general industry except agricultural-product industries. A conservative estimate places coverage of the Fair Labor Standards Act at 15,500,000 wage earners.

The highest hourly minimum wage that may be established by wage order is 40 cents. The rate or rates recommended must not be such as to curtail employment substantially. Studies of the economics and wage practices of three industrial groups—seamless hosiery, textiles, and men's cotton garments—were made to ascertain the effects of the wage orders after they had been in operation for some months. In all three the minimum hourly wages at first established by wage order were subsequently raised upon committee recommendation.

It is sometimes contended by students of management that the establishment of minimum wages stimulates the employer's ingenuity. Labor is only one element in production costs, but when other costs rise there is a tendency to reduce wages. This avenue of escape is closed when minimum rates are in effect. The extent to which plants felt the impact of the minimum-wage standard in the seamless-hosiery industry, for example, cannot be measured, but the wage and hour report states: "It is reasonable to suppose that wage advances of the magnitude experienced by many plants in the seamless industry served to stimulate the exercise of managerial ingenuity." One type of adjustment that may be open when wage levels rise is to substitute new equipment for old or to make alterations in old equipment to increase its efficiency.

Progress in enforcing the wage and hour law can be measured only in comparison with the total amount of work needed.

The number of establishments covered by the law fluctuates from year to year. During the fiscal year 1940-41, the report estimates the 15,500,000 covered employees were working in more than 360,000 establishments. In all, 48,449 complaint and routine cases were

closed after inspections in the fiscal year covered. Violations were found in 31,493, and there were no violations in the remaining 16,956. Routine cases of inspection (27,899) exceeded the number of complaint cases (20,550). The incidence of violations was relatively greater in complaint than in routine cases, as is shown in the following table giving the results of the inspection work for the year ended June 30, 1941.

*Results of Inspection for all Closed Cases and for Closed Complaint and Routine Cases  
Fiscal Year 1941*

Nature of closing	Total cases	Complaint cases	Routine cases
Cases closed.....	48,449	20,550	27,899
Violations found.....	31,493	14,513	16,980
Restitution cases.....	18,975	10,575	8,400
Civil actions required.....	1,737	912	825
Criminal actions required.....	48	41	7
Minor violations, no restitution.....	12,518	3,938	8,580
Establishments out of business.....	492	492	
No violations found.....	16,956	6,037	10,919
Not covered.....	7,488	3,020	4,468
In compliance.....	8,976	2,525	6,451

### GUARANTEED WORK FOR URUGUAYAN PACKING-HOUSE WORKERS <sup>1</sup>

A MINIMUM working month of not less than 100 hours, covering a period of 100 days during the post wool-clip season, is guaranteed to the workers of four specified Uruguayan packing plants by a decree of December 26, 1941, effective from January 2, 1942, date of its publication in the *Diario Oficial*. A worker is to be paid the same wage as he was earning during the "clip."

All workers who, by October 30, 1942, shall have worked a year in the packing plant, and those who in the future may reach such a term of service, are entitled to this benefit.

Each year the Executive Authority, through the Ministry of Industries and Labor, will fix the period during which the 100-day guaranty will occur.

<sup>1</sup> From report of Robert G. Glover, United States commercial attaché at Montevideo, Uruguay.

# Labor Turn-Over

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## LABOR TURN-OVER IN MANUFACTURING, 1930-41

A STABILIZED working force is one of the first considerations in the attainment of efficient production schedules. Although complete stability is neither desirable nor wholly attainable, the experience of many establishments has proved that excessive changes in personnel lower the volume and increase the cost of production, and that a great part of the social and economic waste involved as a result of a rapidly shifting work force can be reduced by better personnel management. As measurement is prerequisite to accurate understanding, the Bureau of Labor Statistics has for a number of years collected turn-over data in manufacturing industries, in order to establish a guide for such measurement. The data may be used as a standard for measuring eight important variables (quits, discharges, lay-offs, miscellaneous separations, total separations, rehiring, new hirings, and total accessions).

### *Trend of Accessions and Separations in 12-Year Period*

Data for accessions and the various types of separations are given, by months, for each of the 12 years from 1930 to 1941, in table 1.

#### ACCESSIONS

Comparisons of the annual hiring rate in all manufacturing industries combined show a succession of increases since 1937, the 1940 increase resulting largely from the intensified demand for industrial workers in key defense industries. In the early part of 1941 the demand for workers spread to many industries manufacturing products not primarily required by the national defense program, bringing the total accession rate for the year (64.51) to the highest point since 1933. The decline in the monthly hiring rates since July may be attributed mainly to the industries where production schedules have been slowed down because of shortages of materials, principally in the metal consuming and textile groups. One of the most striking changes in accessions since 1940 is the decreasing ratio of rehiring (i. e., of workers rehired after a separation of less than 3 months). In 1940 approximately 40 percent and in 1941 only 19 percent of the total accessions were persons rehired.

#### SEPARATIONS

*Quits.*—The sharp irregular rise in the quit rate in all manufacturing combined, during the past 2 years, reflects the voluntary terminations arising from increased demand for workers in manufacturing



establishments and the resulting increase in job opportunities in nearly all lines of manufacture.

The highest rate during the 12-year period was reached in September 1941, when nearly 3 of every 100 employees on the pay roll quit their jobs. These figures become particularly significant when compared with the accession rate of 5.16 in the same month, indicating that more than half of the total accessions represented replacements of such workers. A comparison with the quit rates during previous years reveals that in February 1938 and February 1933—both during periods of sharp reductions in production schedules in manufacturing—the number of workers quitting declined to the unusual low of 0.49 per 100 employees. As the general industrial conditions improved and the demand for labor increased, many men who held jobs left them for others with higher wage rates or better working conditions. The result has been that replacements have been made from other plants, localities, or industries, thereby extending the shifting of the work force beyond the defense industries into those not primarily engaged in the production of materials required by the national defense program.

*Discharges.*—The discharge rate usually follows the same general course as the quit rate but does not show such marked fluctuations. During 1941, although great numbers of new workers were added to the pay rolls and manufacturers encountered increasing difficulties in procuring skilled workers, the discharge rate remained remarkably low. The inauguration of more standardized methods of employee training has been particularly effective in keeping discharges at a low level since the beginning of the defense program. Several States, in cooperation with the Federal Government and the manufacturers, have established training courses in public high schools and junior colleges where applicants have been trained to do the job for which they applied. A large number of privately owned schools have also expanded their industrial-training program. In nearly all cases applicants are given aptitude tests and physical examinations before being accepted as trainees. As a result a greater number of persons unable to stand the work were rejected at the source of supply, instead of after being on the job for a few days.

*Lay-offs.*—Available records indicate that prior to 1930 the largest proportion of separations was reported as "quits." During the following 11 years lay-offs predominated, indicating that the opportunities for reemployment were not so great and that the demand for labor was limited. The impact of the defense program on production schedules caused important changes in the labor market. The demand for industrial workers increased as the production schedules were expanded. It was not until February 1941, however, that the quit rate rose to a point where voluntary separations exceeded lay-offs. In June 1941, the lay-off rates declined to the lowest level for the 12-year period (1.03).

*Miscellaneous separations.*—This type of separations represents only a small part of total separations. Beginning with September 1940 military separations have been included in this group. The rise in the rates may therefore be attributed principally to workers leaving to join the armed forces of the United States.

*Total separations.*—The total separation rate is the sum of the quit, discharge, lay-off, and miscellaneous separation rates. As a result of

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the higher quit rates the total separation rate in 1941 was slightly higher than in 1940 and was below the annual rate for a number of previous years in which production schedules were sharply reduced as in the early 30's and in the latter part of 1937 and beginning of 1938. The highest point was reached in December 1937 when 8.51 of every 100 employees were reported as separations.

TABLE 1.—*Monthly and Annual Labor Turn-Over Rates (per 100 Employees) in Representative Factories in 135 Industries, January 1930 to December 1941*<sup>1</sup>

Class of rates and year	Year	January	February	March	April	May	June	July	August	September	October	November	December
<b>Separations:</b>													
<b>Quits:</b>													
1930.....	18.64	1.85	1.60	1.94	2.11	2.01	1.85	1.35	1.40	1.50	1.29	0.90	0.84
1931.....	11.39	.74	.74	.94	1.14	1.12	1.02	1.10	1.05	1.16	1.00	.72	.66
1932.....	8.34	.71	.71	.86	.91	.68	.66	.63	.67	.76	.65	.54	.56
1933.....	10.66	.65	.49	.53	.63	.84	1.03	1.25	1.22	1.65	.87	.78	.72
1934.....	10.67	.90	.85	.93	1.11	1.01	.94	.70	.75	1.55	.73	.62	.58
1935.....	10.37	.76	.73	.75	.93	1.21	.83	.90	.86	1.05	.89	.77	.69
1936.....	13.02	.71	.68	.86	1.16	1.06	1.13	1.15	1.23	1.57	1.29	1.13	1.05
1937.....	14.97	1.27	1.19	1.43	1.38	1.37	1.89	1.25	1.23	1.59	1.05	.72	.60
1938.....	7.46	.52	.49	.61	.59	.62	.61	.59	.65	.82	.78	.60	.58
1939.....	9.52	.85	.64	.82	.76	.68	.73	.70	.82	1.07	.93	.83	.69
1940.....	10.93	.63	.62	.67	.74	.77	.78	.85	1.10	1.37	1.31	1.10	.99
1941.....	23.63	1.31	1.33	1.70	2.08	2.20	2.06	2.25	2.46	2.81	2.11	1.57	1.75
<b>Discharges:</b>													
1930.....	5.04	.54	.62	.60	.53	.48	.46	.32	.36	.36	.32	.24	.21
1931.....	2.72	.19	.20	.26	.31	.28	.23	.25	.22	.24	.21	.17	.16
1932.....	1.96	.19	.18	.21	.22	.16	.14	.14	.14	.14	.14	.15	.15
1933.....	2.49	.15	.13	.14	.15	.18	.26	.26	.31	.27	.24	.22	.18
1934.....	2.24	.18	.19	.21	.23	.22	.18	.19	.19	.16	.19	.15	.15
1935.....	2.29	.18	.18	.17	.20	.17	.20	.20	.21	.19	.21	.20	.18
1936.....	2.63	.20	.17	.19	.21	.20	.23	.23	.27	.26	.24	.21	.22
1937.....	2.38	.21	.22	.24	.23	.21	.19	.21	.19	.19	.19	.16	.14
1938.....	1.29	.11	.11	.11	.10	.13	.11	.09	.10	.12	.12	.10	.09
1939.....	1.52	.10	.10	.13	.10	.13	.12	.12	.14	.14	.17	.15	.12
1940.....	1.84	.14	.16	.15	.13	.13	.14	.14	.16	.16	.19	.18	.16
1941.....	3.04	.18	.19	.21	.25	.24	.26	.29	.30	.31	.28	.24	.29
<b>Lay-offs:<sup>2</sup></b>													
1930.....	35.97	2.70	2.50	2.83	2.57	2.68	3.00	4.17	3.99	3.14	2.88	2.77	2.74
1931.....	34.27	1.95	1.75	1.75	1.96	2.43	3.84	3.32	2.40	4.22	5.01	3.03	2.61
1932.....	41.68	2.45	2.43	3.30	4.00	4.27	4.83	4.47	3.04	3.57	2.67	2.70	3.35
1933.....	32.23	2.76	3.78	3.93	2.00	1.34	1.18	1.98	1.87	2.34	3.47	3.79	3.79
1934.....	36.26	2.35	1.85	2.08	2.04	3.65	3.48	2.96	3.56	3.41	4.38	3.78	2.72
1935.....	30.08	2.10	1.88	2.32	2.60	3.00	3.46	2.57	2.70	1.95	2.03	2.58	2.89
1936.....	24.70	2.66	2.21	1.83	1.92	2.06	1.92	1.84	3.23	1.47	1.72	1.70	2.14
1937.....	35.76	1.90	1.44	1.53	1.48	1.79	1.94	2.06	2.57	2.84	4.45	5.99	7.77
1938.....	40.47	5.45	3.79	3.74	3.85	3.82	3.69	3.13	2.33	2.62	2.40	2.44	3.21
1939.....	26.67	2.24	1.87	2.23	2.60	2.67	2.46	2.54	2.05	1.58	1.81	1.97	2.65
1940.....	25.89	2.55	2.67	2.53	2.69	2.78	2.32	2.25	1.63	1.48	1.53	1.60	1.86
1941.....	15.86	1.61	1.20	1.06	1.19	1.08	1.03	1.40	1.13	1.16	1.41	1.44	2.15
<b>Miscellaneous separations:<sup>3</sup></b>													
1940.....	1.61	.11	.11	.11	.10	.10	.12	.11	.11	.21	.20	.18	.15
1941.....	4.15	.31	.43	.43	.37	.34	.36	.30	.25	.25	.33	.26	.52
<b>Total separations:</b>													
1930.....	59.65	5.09	4.72	5.37	5.21	5.17	5.31	5.84	5.75	5.00	4.49	3.91	3.79
1931.....	48.38	2.88	2.69	2.95	3.41	3.83	5.09	4.67	3.67	5.62	6.22	3.92	3.43
1932.....	51.98	3.35	3.32	4.37	5.78	5.11	5.13	5.24	3.85	4.47	3.46	3.39	4.06
1933.....	45.38	3.56	4.40	4.60	2.78	2.36	2.47	3.49	3.40	4.26	4.58	4.79	4.69
1934.....	49.17	3.43	2.89	3.22	3.38	4.88	4.60	3.85	4.50	5.12	5.30	4.55	3.45
1935.....	42.74	3.04	2.79	3.24	3.73	4.38	4.49	3.67	3.77	3.19	3.13	3.55	3.76
1936.....	40.35	3.57	3.06	2.88	3.29	3.32	3.28	3.22	4.73	3.30	3.25	3.04	3.41
1937.....	53.11	3.38	2.85	3.20	3.09	3.37	4.02	3.52	3.99	4.62	5.69	6.87	8.51
1938.....	49.22	6.08	4.39	4.46	4.54	4.57	4.41	3.81	3.08	3.56	3.30	3.14	3.88
1939.....	37.71	3.19	2.61	3.18	3.46	3.48	3.31	3.36	3.01	2.79	2.91	2.95	3.46
1940.....	40.27	3.43	3.56	3.46	3.66	3.78	3.36	3.35	3.00	3.22	3.23	3.06	3.16
1941.....	46.68	3.41	3.15	3.40	3.89	3.86	3.71	4.24	4.14	4.53	4.13	3.51	4.71

See footnotes at end of table.

TABLE 1.—Monthly and Annual Labor Turn-Over Rates (per 100 Employees) in Representative Factories in 135 Industries, January 1930 to December 1941—Continued

Class of rates and year	Year	January	February	March	April	May	June	July	August	September	October	November	December
Accessions: <sup>a</sup>													
Rehirings:													
1940.....	20.28	1.96	1.26	1.38	1.42	1.49	2.06	1.94	3.04	2.20	1.22	1.18	1.10
1941.....	12.24	1.45	1.08	1.24	1.04	.92	.90	1.04	1.11	.87	.86	.79	.94
New hirings:													
1940.....	32.44	1.78	1.72	1.56	1.63	1.87	2.70	2.83	3.59	4.01	4.30	3.47	2.96
1941.....	52.27	4.09	3.84	4.38	5.00	5.03	5.41	4.96	4.32	4.29	4.01	3.12	3.82
Total accessions:													
1930.....	37.02	3.95	3.94	4.15	3.55	3.28	2.92	2.51	2.71	3.27	2.56	2.05	2.13
1931.....	36.59	2.97	2.82	3.67	3.06	2.79	2.41	3.02	2.60	3.58	2.75	3.63	3.29
1932.....	39.82	4.15	2.75	2.75	2.76	2.59	2.70	3.01	4.21	5.04	3.72	3.07	3.07
1933.....	65.20	3.48	2.56	2.22	4.87	7.21	10.21	9.48	8.59	5.53	3.97	3.71	3.27
1934.....	56.91	5.81	6.71	6.33	5.18	4.19	3.58	3.71	3.24	3.61	4.09	4.32	6.14
1935.....	50.05	6.33	4.23	3.79	3.63	3.01	3.18	4.17	4.60	4.95	5.23	3.63	3.30
1936.....	52.16	3.65	2.95	3.97	4.46	4.05	4.49	4.94	4.72	5.09	4.83	4.60	4.41
1937.....	42.59	4.60	4.71	4.74	4.04	3.56	3.69	3.36	3.78	2.84	1.79	2.12	2.12
1938.....	46.16	3.78	3.13	3.13	2.58	2.84	3.44	4.81	5.29	4.51	5.19	4.24	3.22
1939.....	48.85	4.09	3.06	3.34	2.93	3.29	3.92	4.16	5.06	6.17	5.89	4.10	2.84
1940.....	52.72	3.74	2.98	2.94	3.05	3.36	4.76	4.77	6.63	6.21	5.52	4.65	4.11
1941.....	64.51	5.54	4.92	5.62	6.04	5.95	6.31	6.00	5.43	5.16	4.87	3.91	4.76

<sup>a</sup> The various turn-over rates represent the number of quits, discharges, lay-offs, total separations, and accessions per 100 employees.

<sup>b</sup> Including temporary, indeterminate, and permanent lay-offs.

<sup>c</sup> Beginning with January 1940, miscellaneous separations, such as deaths, permanently disabled, retired on pensions, etc., have been reported separately. Such separations were formerly reported under the classification "quits and miscellaneous separations."

<sup>d</sup> Beginning with September 1940, workers leaving to enter the Army or Navy are included in "miscellaneous separations."

<sup>e</sup> Beginning with January 1940, accessions have been separated into two classifications: rehires, which include workers hired after a separation of 3 months or less; and other employees hired.

### Annual Labor Turn-Over in Specified Industries

Reflecting the widespread employment opportunities that have developed during the past 2 years the annual quit rates in 1941, in nearly all industries, rose to the highest level on record. In some industries it was almost 3 times as great as in the preceding year. In 7 of the 42 industries, shown in the following table, more than one-third of the average number of employees on the pay roll were reported as quits. Compared with 1940 higher discharge rates were also shown, particularly in war industries, indicating that all workers hired were not satisfactory and emphasizing the difficulties encountered by the manufacturer in obtaining skilled workers. In contrast to the higher quit and discharge rates, the percentage of lay-offs, with but few exceptions, showed a substantial decline in all industries. Extremely low lay-off rates prevailed generally in industries manufacturing products required by the national defense program.

Twenty-seven of the 42 industries registered higher total separation rates in 1941 than in 1940. In one of the seasonal industries, slaughtering and meat packing, the total number of separations for the year was greater than the average number on the pay roll. The exceedingly high separation rate was accompanied by an accession rate of 117.88 per 100 employees. Unusually high accession rates were also shown for a number of strategic defense industries.

Annual quit, discharge, lay-off, miscellaneous separation, rehiring, new hiring, and total accession rates in 42 industries for the years in which data have been collected are shown in table 2.

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TABLE 2.—Annual Labor Turn-Over Rates (per 100 Employees) in all Manufacturing and in 42 Separate Industries

## QUIT RATES

Industry	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941
All manufacturing.....	11.39	8.34	10.66	10.67	10.37	13.02	14.97	7.46	9.52	10.93	23.63
Agricultural implements.....									4.20	6.76	15.81
Aircraft.....							18.45	7.54	13.74	26.89	30.07
Aluminum.....										9.17	23.55
Automobiles and bodies.....	13.11	10.06	14.50	22.21	15.56	15.86	13.68	4.87	10.09	10.09	19.23
Automobile parts and equipment.....	11.01	8.99	15.99	19.47	13.36	19.12	20.91	5.86	8.33	12.21	23.68
Boots and shoes.....	19.11	11.55	11.55	10.46	7.93	9.88	12.72	8.96	8.93	8.74	20.18
Brass, bronze, and copper products.....									6.59	10.97	26.80
Brick, tile, and terra cotta.....		3.41	6.43	11.61	19.45	14.20	15.00	7.50	9.12	10.97	24.72
Cast-iron pipe.....									7.32	7.31	17.26
Cement.....								5.61	4.95	4.25	11.04
Chemicals.....										13.38	17.77
Cigars and cigarettes.....		22.17	16.17	16.16	14.32	18.78	21.36	12.99	15.70	15.75	31.71
Cotton manufacturing.....	16.32	13.11	20.08	18.62	13.98	17.19	18.03	11.89	16.65	18.57	39.14
Dyeing and finishing textiles.....										12.21	34.06
Electrical machinery.....		5.07	7.12	5.77	7.01	10.32	13.62	6.57	7.63	8.32	18.69
Engines, turbines and water wheels.....										10.59	22.73
Foundries and machine shops.....	7.58	3.71	6.19	8.20	9.06	13.92	14.18	6.26	6.61	9.96	26.23
Furniture.....	9.71	5.20	9.31	7.42	8.57	15.72	20.86	10.02	9.40	12.24	36.31
Glass.....								5.68	4.34	5.82	16.65
Hardware.....		4.65	5.96	6.71	10.86	10.13	17.28	5.56	8.05	15.43	39.43
Iron and steel.....	9.39	7.10	7.67	8.92	9.42	12.48	25.56	4.85	4.92	6.66	13.61
Knit goods.....							17.39	9.73	11.58	10.63	24.66
Machine tools.....							14.73	5.55	9.84	15.53	24.06
Men's clothing.....		11.25	9.92	9.20	99.47	10.50	11.73	8.42	9.06	9.94	19.11
Paints and varnishes.....								6.13	10.88	8.43	19.04
Paper and pulp.....								5.62	7.39	7.55	16.78
Petroleum refining.....		4.82	5.62	5.79	5.74	7.41	6.38	4.28	4.91	4.16	7.01
Planing mills.....										13.28	33.36
Printing: Book and job.....								4.76	5.60	7.76	20.81
Printing: Newspapers and periodicals.....								3.80	3.57	4.24	6.97
Radios and phonographs.....								12.77	19.38	19.61	30.92
Rayon and allied products.....							10.83	7.65	6.98	10.67	11.39
Rubber boots and shoes.....								7.10	9.58	10.31	29.00
Rubber tires.....	10.30	5.98	8.93	6.02	5.32	8.19	8.17	6.27	5.86	5.96	15.94
Sawmills.....	16.17	9.48	17.11	14.41	35.87	21.54	27.66	14.75	16.47	15.25	33.78
Shipbuilding.....							15.95	9.31	9.07	14.00	29.04
Silk and rayon goods.....								12.03	13.18	13.39	33.87
Slaughtering and meat packing.....	15.61	10.48	11.38	13.72	9.01	13.94	10.78	6.74	7.22	8.47	18.79
Steam and hot water heating apparatus.....								6.00	8.52	11.93	32.58
Structural and ornamental metal-work.....										12.32	22.04
Tools (not including edge tools, machine tools, files and saws).....										10.27	27.86
Woolen and worsted goods.....							12.56	9.36	13.10	16.74	32.96

TABLE 2.—Annual Labor Turn-Over Rates (per 100 Employees) in all Manufacturing and in 42 Separate Industries—Continued

DISCHARGE RATES											
Industry	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941
All manufacturing.....	2.72	1.96	2.49	2.24	2.29	2.63	2.38	1.29	1.52	1.84	3.04
Agricultural implements.....									1.05	1.33	2.55
Aircraft.....							2.83	1.44	3.38	5.08	5.71
Aluminum.....										1.60	3.91
Automobiles and bodies.....	3.90	2.65	4.81	4.68	3.21	3.08	2.24	.75	.84	.74	1.80
Automobile parts and equipment.....	3.83	1.92	3.91	4.90	3.94	5.17	3.96	1.27	1.90	2.99	4.41
Boots and shoes.....	4.46	2.74	2.93	2.64	2.25	2.63	2.23	1.41	1.50	1.34	2.06
Brass, bronze, and copper products.....									.79	2.06	3.69
Brick, tile, and terra cotta.....		3.01	1.95	2.40	1.85	2.85	3.02	1.46	1.71	1.87	2.97
Cast-iron pipe.....									1.76	2.15	4.25
Cement.....								1.59	.81	1.03	1.40
Chemicals.....										1.28	3.03
Cigars and cigarettes.....		4.08	3.61	2.74	2.67	2.48	1.57	1.37	1.67	1.94	1.86
Cotton manufacturing.....	4.53	3.24	4.56	3.73	3.25	3.36	3.02	2.08	2.70	2.50	3.74
Dyeing and finishing textiles.....										2.07	3.56
Electrical machinery.....		1.22	1.16	1.43	1.40	1.83	2.11	.77	.85	1.30	2.81
Engines, turbines, and water wheels.....										1.97	4.49
Foundries and machine shops.....	2.74	1.23	2.00	2.37	3.07	3.70	3.36	.96	1.18	2.36	5.01
Furniture.....	4.02	1.79	3.72	2.77	2.72	3.90	3.76	2.19	2.55	2.89	4.75
Glass.....								1.14	1.08	.98	2.10
Hardware.....		.90	1.12	1.28	4.02	2.15	2.51	.88	2.00	1.73	4.21
Iron and steel.....	1.24	.66	1.28	1.07	1.02	1.10	1.00	.66	.65	1.06	1.37
Knit goods.....							1.11	1.14	1.55	1.40	2.51
Machine tools.....							3.90	.96	1.42	4.73	5.27
Men's clothing.....		1.07	1.43	1.16	1.41	.98	.86	.80	1.15	1.86	2.17
Paints and varnishes.....								1.36	2.19	2.58	3.33
Paper and pulp.....								1.74	1.46	1.49	2.74
Petroleum refining.....		1.26	.95	1.68	1.37	1.33	.98	.62	.85	.75	.76
Planing mills.....										2.56	4.49
Printing: Book and job.....								1.74	1.72	2.04	3.11
Printing: Newspapers and periodicals.....								.82	1.94	.94	2.41
Radios and phonographs.....								1.63	2.63	2.06	3.08
Rayon and allied products.....							3.04	2.43	1.70	1.51	1.87
Rubber boots and shoes.....								.29	.88	1.73	2.37
Rubber tires.....	1.60	1.11	1.58	.69	.62	.91	1.05	.48	.73	.69	1.30
Sawmills.....	5.53	4.10	5.09	5.40	4.36	4.04	3.48	2.50	2.30	2.31	3.83
Shipbuilding.....							2.86	1.32	1.54	3.50	5.84
Silk and rayon goods.....								.95	1.02	1.17	3.47
Slaughtering and meat packing.....	5.47	3.91	4.58	4.61	2.80	3.11	2.49	1.84	1.91	2.17	2.91
Steam and hot water heating apparatus.....								1.20	1.28	2.06	3.84
Structural and ornamental metal-work.....										1.09	2.69
Tools (not including edge tools, machine tools, files, and saws).....										1.93	3.46
Woolen and worsted goods.....							1.39	.88	1.54	1.53	2.55

TABLE 2.

All manu

Agriculture  
Aircraft...  
Aluminum...  
Automobile...  
Automobile...  
Automobile...  
Boots and...  
Brass, bro...  
Brick, tile...  
Cast-iron p...  
Cement...  
Chemicals...  
Cigars and...  
Cotton ma...  
Dyeing and...  
Electrical...  
Engines, t...  
Foundries...  
Furniture...  
Glass...  
Hardware...  
Iron and...  
Knit good...  
Machine...  
Men's clo...  
Paints an...  
Paper an...  
Petroleu...  
Planing m...  
Printing: ...  
Printing: ...  
Printing: ...  
Radios a...  
Rayon a...  
Rubber...  
Rubber...  
Sawmills...  
Shipbuil...  
Silk and...  
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ratus...  
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work...  
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machin...  
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TABLE 2.—Annual Labor Turn-Over Rates (per 100 Employees) in all Manufacturing and in 42 Separate Industries—Continued

LAY-OFF RATES<sup>1</sup>

Industry	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941
All manufacturing.....	34.27	41.68	32.23	36.26	30.08	24.70	35.76	40.47	26.67	25.89	15.86
Agricultural implements.....									28.73	18.24	8.71
Aircraft.....							17.16	17.30	19.91	12.35	3.98
Aluminum.....										18.48	20.59
Automobiles and bodies.....	74.14	86.16	77.65	90.41	51.46	58.92	77.09	89.40	66.51	55.29	42.83
Automobile parts and equipment.....	56.18	87.02	76.12	92.64	58.71	39.45	84.12	91.01	66.52	55.01	37.40
Boots and shoes.....	28.74	26.22	25.06	25.37	23.97	23.34	37.33	30.51	27.31	25.86	15.32
Brass, bronze, and copper products.....									15.92	21.42	14.48
Brick, tile, and terra cotta.....		132.78	96.42	96.67	74.58	46.17	67.26	66.99	45.89	46.12	24.79
Cast-iron pipe.....									13.02	9.03	5.60
Cement.....								77.67	50.07	40.91	23.09
Chemicals.....										9.13	6.43
Cigars and cigarettes.....		20.44	16.82	34.31	32.24	26.30	22.05	28.89	22.69	16.81	18.50
Cotton manufacturing.....	32.60	46.23	31.85	35.01	38.88	20.86	34.22	36.34	20.24	26.58	9.91
Dyeing and finishing textiles.....										19.49	11.92
Electrical machinery.....		51.97	27.99	21.34	18.42	14.62	28.53	44.91	17.85	12.37	8.29
Engines, turbines, and water wheels.....										7.45	2.86
Foundries and machine shops.....	43.35	41.45	31.36	37.76	28.51	19.06	30.16	44.97	17.89	15.98	11.31
Furniture.....	50.96	54.88	53.28	50.24	33.91	32.38	46.08	49.14	30.90	27.37	17.56
Glass.....								36.78	30.27	24.47	20.27
Hardware.....		35.14	19.14	14.77	8.03	13.28	35.21	31.70	18.81	14.20	11.44
Iron and steel.....	21.18	26.89	17.52	19.91	12.44	8.52	23.60	26.87	9.37	14.31	3.61
Knit goods.....							22.96	26.23	16.90	22.64	17.48
Machine tools.....							12.62	31.60	6.01	3.09	1.57
Men's clothing.....		31.69	26.80	31.48	28.86	34.36	51.83	63.19	40.34	45.89	19.20
Paints and varnishes.....								17.48	13.17	11.90	9.69
Paper and pulp.....								13.01	12.18	11.66	8.80
Petroleum refining.....		25.28	19.89	31.85	25.03	24.97	25.15	19.92	19.34	14.31	9.27
Planing mills.....										25.85	22.86
Printing: Book and job.....								40.31	39.78	39.78	34.77
Printing: Newspapers and periodicals.....								18.46	19.10	17.39	15.51
Radios and phonographs.....								60.64	43.07	38.84	20.27
Rayon and allied products.....							33.76	30.95	12.27	7.84	7.55
Rubber boots and shoes.....								30.73	26.47	19.00	11.65
Rubber tires.....	19.55	18.15	19.07	22.79	20.68	7.50	27.82	32.66	13.64	20.17	13.83
Sawmills.....	85.89	77.38	51.94	67.99	53.20	52.10	66.99	57.13	37.73	35.07	26.60
Shipbuilding.....							34.78	34.52	20.39	48.87	32.61
Silk and rayon goods.....								40.90	36.71	46.95	24.65
Slaughtering and meat packing.....	60.18	68.77	70.33	111.97	94.18	71.32	76.86	80.52	70.86	70.25	72.91
Steam and hot water heating apparatus.....								21.54	13.88	10.11	6.97
Structural and ornamental metal-work.....										53.37	15.22
Tools (not including edge tools, machine tools, files, and saws).....										14.41	4.73
Woolen and worsted goods.....							68.52	77.65	60.29	52.36	11.36

<sup>1</sup> Including temporary, indeterminate, and permanent lay-offs.



TABLE 2.—Annual Labor Turn-Over Rates (per 100 Employees) in all Manufacturing and in 42 Separate Industries—Continued

## MISCELLANEOUS SEPARATION RATES

Industry	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941
All manufacturing.....										1.61	4.15
Agricultural implements.....										1.35	4.28
Aircraft.....										1.11	4.25
Aluminum.....										5.95	11.95
Automobiles and bodies.....										1.37	5.77
Automobile parts and equipment.....										1.35	4.76
Boots and shoes.....										1.14	3.00
Brass, bronze, and copper products.....										1.08	5.32
Brick, tile, and terra cotta.....										1.20	3.30
Cast-iron pipe.....										1.10	3.47
Cement.....										1.99	4.08
Chemicals.....										.78	5.19
Cigars and cigarettes.....										2.06	2.35
Cotton manufacturing.....										2.47	3.73
Dyeing and finishing textiles.....										1.58	4.36
Electrical machinery.....										3.25	6.71
Engines, turbine, and water wheels.....										.79	3.58
Foundries and machine shops.....										1.44	4.35
Furniture.....										1.55	4.90
Glass.....										1.60	5.08
Hardware.....										1.33	4.67
Iron and steel.....										2.01	5.14
Knit goods.....										.72	1.85
Machine tools.....										1.42	3.15
Men's clothing.....										.87	1.50
Paints and varnishes.....										1.11	4.45
Paper and pulp.....										2.47	4.14
Petroleum refining.....										1.90	3.60
Planing mills.....										1.50	4.78
Printing: Book and job.....										1.59	3.00
Printing: Newspapers and periodicals.....										1.30	2.27
Radios and phonographs.....										.90	2.62
Rayon and allied products.....										.71	4.29
Rubber boots and shoes.....										3.43	6.06
Rubber tires.....										1.53	5.28
Sawmills.....										1.92	4.25
Shipbuilding.....										2.13	8.01
Silk and rayon goods.....										.91	2.74
Slaughtering and meat packing.....										2.54	6.26
Steam and hot water heating apparatus.....										1.18	5.47
Structural and ornamental metal-work.....										1.74	4.77
Tools (not including edge tools, machine tools, files, and saws).....										1.19	3.76
Woolen and worsted goods.....										1.84	3.60

TABLE

All ma

Agricult  
 Aircraft  
 Aluminu  
 Automob  
 Automob  
 Automob  
 Boots a  
 Brass, b  
 Brick, t  
 Cast-ir  
 Cement  
 Chemica  
 Cigars  
 Cotton  
 Dyeing  
 Electric  
 Engine  
 Foundr  
 Furnit  
 Glass  
 Hardw  
 Iron an  
 Knit g  
 Machi  
 Men's  
 Paints  
 Paper  
 Petrol  
 Planin  
 Printi  
 Printi  
 icals  
 Radio  
 Rayon  
 Rubb  
 Rubb  
 Sawm  
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 Silk a  
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 Tools  
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 Wool

TABLE 2.—Annual Labor Turn-Over Rates (per 100 Employees) in all Manufacturing and in 42 Separate Industries—Continued

## TOTAL SEPARATION RATES

Industry	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941
All manufacturing.....	48.38	51.98	45.38	49.17	42.74	40.35	53.11	49.22	37.71	40.27	46.68
Agricultural implements.....									33.98	27.68	31.35
Aircraft.....							38.44	26.28	38.68	45.43	44.01
Aluminum.....										35.20	60.00
Automobiles and bodies.....	91.24	98.87	96.96	117.30	70.23	77.86	93.01	96.02	77.44	67.49	69.63
Automobile parts and equipment.....	71.02	97.93	96.02	117.01	76.01	63.74	108.99	98.14	76.75	71.56	70.25
Boots and shoes.....	52.81	40.51	39.54	38.47	34.15	35.85	52.28	40.88	37.74	37.08	40.59
Brass, bronze, and copper products.....									23.30	35.53	50.29
Brick, tile, and terra cotta.....		139.20	104.80	110.68	95.88	63.22	85.28	75.95	56.72	60.16	55.78
Cast-iron pipe.....									21.10	19.59	30.58
Cement.....								84.87	55.83	48.18	39.61
Chemicals.....										24.57	32.42
Cigars and cigarettes.....		46.69	36.60	53.21	49.23	47.56	44.98	43.25	40.06	36.56	54.42
Cotton manufacturing.....	53.45	62.58	56.49	57.36	56.11	41.41	55.27	50.31	39.69	50.12	56.52
Dyeing and finishing textiles.....										35.35	53.90
Electrical machinery.....		58.26	36.27	28.54	26.83	26.77	44.26	52.25	26.33	25.24	36.50
Engines, turbines, and water wheels.....										20.80	33.66
Foundries and machine shops.....	53.67	46.39	39.55	48.33	40.64	36.68	47.70	52.19	25.68	29.74	46.90
Furniture.....	64.69	61.87	66.31	60.43	45.20	52.00	71.30	61.35	42.85	44.05	63.52
Glass.....								43.00	35.09	32.87	44.10
Hardware.....		40.69	26.22	22.76	22.91	25.56	55.00	38.14	28.86	32.69	59.75
Iron and steel.....	31.81	34.65	26.47	29.90	22.88	22.10	50.16	32.38	14.94	24.04	23.73
Knit goods.....							41.46	37.10	30.03	35.29	46.50
Machine tools.....							31.25	38.11	17.27	24.77	34.05
Men's clothing.....		44.01	38.15	41.84	39.74	45.84	64.42	72.41	50.55	58.56	41.98
Paints and varnishes.....								24.97	26.24	24.02	36.51
Paper and pulp.....							28.75	20.37	21.03	23.17	32.46
Petroleum refining.....		31.36	26.46	39.32	32.14	33.71	32.51	24.82	25.10	21.12	20.64
Planing mills.....										43.19	65.49
Printing: Book and job.....								46.81	47.10	51.12	62.29
Printing: Newspapers and periodicals.....								23.08	24.61	23.87	27.16
Radios and phonographs.....								75.04	65.08	61.41	56.89
Rayon and allied products.....							47.63	41.03	20.95	20.73	25.10
Rubber boots and shoes.....								38.12	36.93	34.47	49.08
Rubber tires.....	31.45	25.24	29.58	29.50	26.62	16.60	37.04	39.41	20.23	28.65	36.35
Sawmills.....	107.59	90.96	74.14	87.80	93.43	77.68	98.13	74.38	56.50	54.55	68.46
Shipbuilding.....							53.59	45.15	31.00	68.50	75.50
Silk and rayon goods.....								53.88	50.91	62.42	64.73
Slaughtering and meat packing.....	81.26	83.16	86.29	130.30	105.99	88.37	90.13	89.10	79.99	83.43	100.87
Steam and hot-water heating apparatus.....								28.74	23.68	25.28	48.86
Structural and ornamental metal-work.....										68.52	44.72
Tools (not including edge tools, machine tools, files, and saws).....										27.80	39.81
Woolen and worsted goods.....							82.47	87.89	64.93	72.47	50.47

TABLE 2.—Annual Labor Turn-Over Rates (per 100 Employees) in all Manufacturing and in 42 Separate Industries—Continued

REHIRING RATES											
Industry	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941
All manufacturing.....										20.28	12.24
Agricultural implements.....										13.82	9.51
Aircraft.....										7.35	3.70
Aluminum.....										16.78	15.44
Automobiles and bodies.....										48.88	33.61
Automobile parts and equipment.....										33.19	16.42
Boots and shoes.....										19.17	12.34
Brass, bronze, and copper products.....										15.43	9.08
Brick, tile, and terra cotta.....										32.12	15.73
Cast-iron pipe.....										5.35	10.47
Cement.....										38.48	20.84
Chemicals.....										9.22	6.55
Cigars and cigarettes.....										12.18	19.22
Cotton manufacturing.....										20.72	13.78
Dyeing and finishing.....										15.99	11.27
Electrical machinery.....										13.46	6.43
Engines, turbines, and water wheels.....										23.05	4.22
Foundries and machine shops.....										10.20	6.25
Furniture.....										18.47	14.53
Glass.....										17.79	12.70
Hardware.....										8.60	7.44
Iron and steel.....										11.61	5.36
Knit goods.....										17.22	11.38
Machine tools.....										2.95	2.64
Men's clothing.....										32.96	16.17
Paints and varnishes.....										7.44	6.21
Paper and pulp.....										6.59	4.92
Petroleum refining.....										7.57	5.68
Planing mills.....										15.86	15.05
Printing: Book and job.....										27.47	19.59
Printing: Newspapers and periodicals.....										13.11	10.62
Radios and phonographs.....										24.91	19.10
Rayon and allied products.....										8.15	7.59
Rubber boots and shoes.....										20.71	12.10
Rubber tires.....										12.66	8.50
Sawmills.....										24.65	18.78
Shipbuilding.....										26.75	30.06
Silk and rayon goods.....										27.43	15.84
Slaughtering and meat packing.....										54.08	61.67
Steam and hot water heating apparatus.....										6.74	7.25
Structural and ornamental metalwork.....										33.13	6.89
Tools (not including edge tools, machine tools, files, and saws).....										7.29	5.69
Woolen and worsted goods.....										41.32	15.08

Table 2

All manu

Agriculture  
 Aircraft  
 Aluminum  
 Automobile  
 Automobile  
 Automobile  
 Boots and  
 Brass, br  
 Brick, ti  
 Cast-iron  
 Cement  
 Chemicals  
 Cigars and  
 Cotton m  
 Dyeing  
 Electric  
 Engines  
 Foundrie  
 Furnitu  
 Glass  
 Hardwa  
 Iron and  
 Knit go  
 Machin  
 Men's c  
 Paints  
 Paper a  
 Petrole  
 Planing  
 Printin  
 Printin  
 cal.  
 Radios  
 Rayon  
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## NEW HIRING RATES

[illegible]

TABLE 2.—Annual Labor Turn-Over Rates (per 100 Employees) in all Manufacturing and in 42 Separate Industries—Continued

TOTAL ACCESSION RATES											
Industry	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941
All manufacturing.....	36.59	39.82	65.20	56.91	50.05	52.16	42.59	46.16	48.85	52.72	64.51
Agricultural implements.....									47.41	37.63	43.96
Aircraft.....							49.79	33.57	111.66	120.42	124.32
Aluminum.....										46.13	63.21
Automobiles and bodies.....	79.95	81.17	116.59	144.23	84.90	88.92	72.00	89.66	81.77	75.99	66.22
Automobile parts and equipment.....	64.05	81.70	124.64	125.23	91.61	84.43	72.04	101.95	92.71	90.15	79.49
Boots and shoes.....	50.29	39.64	46.36	41.55	38.21	37.86	43.19	44.11	39.74	37.56	49.36
Brass, bronze, and copper products.....									46.79	60.71	65.52
Brick, tile, and terra cotta.....		92.72	126.80	108.98	106.62	83.50	64.15	84.08	73.05	63.64	67.31
Cast-iron pipe.....									27.62	30.09	41.70
Cement.....								67.83	65.57	57.90	54.55
Chemicals.....										34.07	50.49
Cigars and cigarettes.....		39.16	59.30	52.00	33.47	60.52	42.80	40.46	41.10	38.56	55.20
Cotton manufacturing.....	47.38	67.48	83.56	53.69	52.33	49.81	38.90	52.25	47.50	52.74	68.20
Dyeing and finishing textiles.....		11.86	49.02	32.72	38.44	53.10	43.08	30.64	43.81	41.86	59.16
Electrical machinery.....										53.17	68.17
Engines, turbines, and water wheels.....										73.26	76.94
Foundries and machine shops.....	30.81	30.23	63.40	58.88	53.62	56.12	46.43	29.84	44.56	45.67	74.00
Furniture.....	55.55	50.36	85.81	58.69	57.28	68.98	52.74	57.77	54.95	53.07	74.72
Glass.....								52.35	37.42	39.45	52.15
Hardware.....		12.12	29.65	27.68	49.35	43.25	38.55	30.82	39.46	49.16	67.43
Iron and steel.....	20.12	17.86	54.91	33.98	29.58	38.85	32.72	21.36	36.11	31.98	35.30
Knit goods.....							32.24	39.16	33.76	35.90	45.88
Machine tools.....							40.55	14.80	52.14	56.41	63.99
Men's clothing.....		45.73	45.13	38.81	46.78	52.16	46.33	73.17	53.93	54.73	49.78
Paints and varnishes.....								20.71	34.75	30.51	48.38
Paper and pulp.....								29.62	28.07	24.21	42.72
Petroleum refining.....		23.94	44.46	38.28	31.55	38.30	33.42	19.49	31.08	21.83	27.26
Planing mills.....										52.65	65.15
Printing: Book and job.....								44.09	51.10	54.27	69.25
Printing: Newspapers and periodicals.....								23.80	24.83	26.17	28.21
Radios and phonographs.....								82.92	78.77	66.00	74.96
Rayon and allied products.....							28.82	51.18	28.67	30.71	34.10
Rubber boots and shoes.....								40.45	35.28	52.32	62.10
Rubber tires.....	21.21	15.24	62.43	28.99	20.86	35.12	12.38	30.90	31.95	32.14	48.58
Sawmills.....	81.16	75.30	108.79	93.35	103.89	82.56	77.03	77.13	64.96	61.56	69.83
Shipbuilding.....							47.42	42.40	62.48	103.64	166.52
Silk and rayon goods.....								68.18	50.19	50.51	56.48
Slaughtering and meat packing.....	80.02	75.92	112.26	133.42	87.51	99.37	84.86	89.92	89.05	92.50	117.88
Steam and hot water heating apparatus.....								25.41	34.00	49.16	57.54
Structural and ornamental metal-work.....										80.13	60.04
Tools (not including edge tools, machine tools, files, and saws).....										41.17	65.40
Woolen and worsted goods.....							48.61	97.01	67.14	80.20	62.55

### Definition of Terms

As used by the Bureau, an *accession* is the hiring of a new employee, or rehiring of an old employee after a separation not exceeding 3 months. New hirings are other workers regardless of whether or not they were formerly employed by the company. Transfers from one plant to another of the same company are not considered accessions or separations.

A *separation* is the termination of employment of any of the following types:

(a) A *quit* is a termination initiated by the employee, regardless of his reason (which may be dissatisfaction with hours, wages, working conditions, labor policies, or due to obtaining a better job, or for any other reason).

(b) A *discharge* is a termination initiated by the employer, with prejudice to the worker, for such reasons as incompetence, violations of rules, dishonesty, insubordination, laziness, etc.

(c) A *lay-off* is a termination initiated by the employer, but without prejudice to the worker. A short furlough during which the name of the worker is retained on the pay roll is not regarded as a lay-off. The same rule applies to suspensions of operations during the inventory period and to vacations. All other separations, whether caused by lack of orders or materials, break-down of plant, release of temporary help, introduction of labor-saving machinery or processes, etc., are considered as lay-offs. This definition of lay-off may lead to some distortion in the general lay-off rate because, under similar conditions, some companies furlough an employee but keep him on the pay roll, while others remove him from the pay roll. Simplicity necessitates the definition as given here.

(d) A *military* separation is a termination resulting from the employee entering the armed services of the United States Government.

(e) The *miscellaneous* group of separations includes those due to death, permanent disability, retirements on pensions, and similar reasons and also military separations.

### *Method of Computation of Rates*

The items of separation and accession are divided by the average number on the pay roll and multiplied by 100 to get the rate per 100 employees for the month. In compiling the rates the actual numbers for the several establishments are added and the general rates computed from the grand total. Thus, each establishment has an influence or "weight" in the rate in proportion to its size.

In comparing monthly rates the number of days in the month should be considered, as no adjustment is made in the monthly rate because of the number of its days. If an equivalent annual rate is desired, the monthly rate can be multiplied by 11.77 if the month has 31 days; by 12.17 if it is a 30-day month; by 13.04 if it is a 28-day month; and by 12.62 if it is a 29-day month. With the adjustment in the equivalent yearly rate this latter figure affords a more exact comparison as between months.



## LABOR TURN-OVER IN MANUFACTURING, FEBRUARY 1942

THE labor turn-over situation in February was characterized by a continuation of high accession rates in manufacturing plants, a decline in lay-offs, and a further slight rise in quit rates, according to the Bureau of Labor Statistics monthly survey. The accession rate for the manufacturing industries covered was 6.00 per 100 employees in February. Although this represented a decrease from the January rate (6.87), it was one of the highest recorded in recent years. Approximately five-sixths of the workers hired in February represented new hirings (i. e., they did not include employees rehired after a separation of 3 months or less). Hiring rates in the primary war industries (for which data are no longer released publicly) declined slightly from January to February, but remained considerably above those for other manufacturing industries.

Since the inauguration of the defense program in June 1940, the total separation rate for all manufacturing industries combined has



been substantially lower than the total accession rate. February separation rate of 4.78,<sup>1</sup> though below the accession rate for the month, was considerably above the separation rate of 3.15 recorded in February 1941. Lay-offs showed marked decreases from May 1940 through June 1941, but increased from June 1941 to December 1941, largely as a result of shortages of raw materials in many industries. During recent months substantial lay-offs have been reported in industries converting their facilities to war production, notably automobiles and bodies and automobile parts and equipment. However, the February lay-off rate for all manufacturing (1.35), was slightly lower than the January rate (1.61), and considerably below that for December 1941 (2.15). The quit rate for all manufacturing showed little change from January to February. The February 1942 quit rate for all manufacturing was 2.41 as compared with 1.33 in February 1941 and 0.62 in February 1940.

The Bureau of Labor Statistics monthly survey on labor turn-over for February included nearly 9,000 manufacturing establishments employing more than 4,300,000 workers. In this issue are presented, for the first time, rates for the following industries: Flour, leather, lighting equipment, paper boxes, stamped and enameled ware, stoves, and textile machinery. These industries replace the war industries for which the publication of turn-over rates has been restricted.

TABLE 1.—Monthly Labor Turn-Over Rates of Factory Workers in Representative Establishments in 135 Industries <sup>1</sup>

Class of turn-over and year	January	February	March	April	May	June	July	August	September	October	November	December	Average
<b>Separations:</b>													
Quits:													
1942.....	2.36	2.41											
1941.....	1.31	1.33	1.70	2.08	2.20	2.06	2.25	2.46	2.81	2.11	1.57	1.75	1.97
Discharges:													
1942.....	.30	.29											
1941.....	.18	.19	.21	.25	.24	.26	.29	.30	.31	.28	.24	.29	.25
Lay-offs: <sup>2</sup>													
1942.....	1.61	1.35											
1941.....	1.61	1.20	1.06	1.19	1.08	1.03	1.40	1.13	1.16	1.41	1.44	2.15	1.32
Miscellaneous separations: <sup>3</sup>													
1942.....	.83	.73											
1941.....	.31	.43	.43	.37	.34	.36	.30	.25	.25	.33	.26	.52	.35
Total:													
1942.....	5.10	4.78											
1941.....	3.41	3.15	3.40	3.89	3.86	3.71	4.24	4.14	4.53	4.13	3.51	4.71	3.89
<b>Accessions:</b>													
Rehirings:													
1942.....	1.41	1.01											
1941.....	1.45	1.08	1.24	1.04	.92	.90	1.04	1.11	.87	.86	.79	.94	1.02
New hirings:													
1942.....	5.46	4.99											
1941.....	4.09	3.84	4.38	5.00	5.03	5.41	4.96	4.32	4.29	4.01	3.12	3.82	4.36
Total:													
1942.....	6.87	6.00											
1941.....	5.54	4.92	5.62	6.04	5.95	6.31	6.00	5.43	5.16	4.87	3.91	4.76	5.38

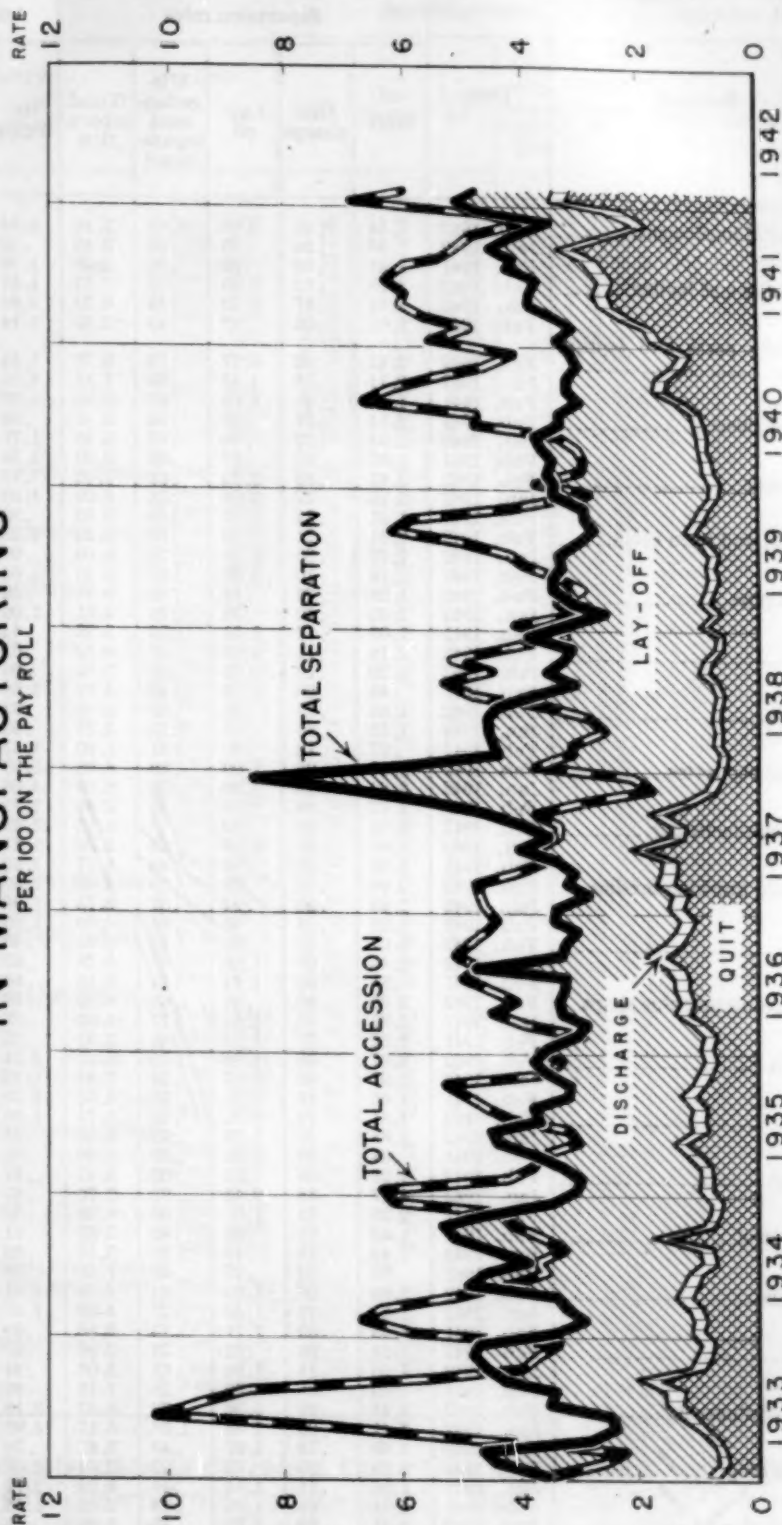
<sup>1</sup> The various turn-over rates represent the number of quits, discharges, lay-offs, total separations, and accessions per 100 employees. It should be noted that turn-over rates are not directly comparable to the "employment and pay roll" reports issued by the Bureau of Labor Statistics. Turn-over rates are based on data for the entire month, while employment and pay roll indexes refer only to the pay period ending nearest the middle of the month. Certain seasonal industries, such as canning and preserving, are not covered by the labor turn-over survey. Finally, the coverage of the labor turn-over sample is not as extensive as that of the employment sample, which includes a greater number of small plants.

<sup>2</sup> Including temporary, indeterminate, and permanent lay-offs.

<sup>3</sup> Military separations included.

# LABOR TURN-OVER RATES IN MANUFACTURING

PER 100 ON THE PAY ROLL



UNITED STATES BUREAU OF LABOR STATISTICS

TABLE 2.—Monthly Turn-Over Rates (per 100 Employees) of Factory Workers in 42 Manufacturing Industries<sup>1</sup>

Industry	Date	Separation rates					Accession rates		
		Quit	Dis-charge	Lay-off	Mis-cellaneous separation <sup>2</sup>	Total separation	Re-hiring	New hiring	Total accession
Agricultural implements.....	Feb. 1942	1.54	0.22	0.49	0.85	3.10	0.34	3.62	3.96
	Jan. 1942	1.85	.24	.46	.93	3.48	.52	3.29	3.81
	Feb. 1941	1.01	.16	.52	.39	2.08	1.26	2.91	4.17
Automobiles and bodies.....	Feb. 1942	1.28	.12	5.39	.73	7.52	1.31	2.89	4.20
	Jan. 1942	2.64	.17	3.22	.49	6.52	2.94	3.07	6.01
	Feb. 1941	1.02	.06	.97	.48	2.53	1.14	2.65	3.79
Automobile parts and equip-ment.....	Feb. 1942	2.41	.42	3.17	.78	6.78	1.34	5.55	6.89
	Jan. 1942	2.11	.34	4.45	.95	7.85	4.51	5.66	10.17
	Feb. 1941	1.41	.33	1.69	.37	3.80	1.28	4.92	6.20
Boots and shoes.....	Feb. 1942	2.14	.27	.56	.54	3.51	.98	3.83	4.81
	Jan. 1942	2.35	.22	.78	.63	3.98	1.71	4.94	6.65
	Feb. 1941	1.07	.19	.67	.30	2.23	1.34	3.03	4.37
Boxes, paper.....	Feb. 1942	3.61	.38	3.32	.61	7.92	1.17	2.96	4.13
	Jan. 1942	3.10	.27	3.04	.58	6.99	1.89	3.69	5.58
	Feb. 1941	1.01	.24	1.77	.50	3.52	.88	3.72	4.60
Brick, tile, and terra cotta.....	Feb. 1942	2.31	.21	3.13	.59	6.24	1.25	2.70	3.95
	Jan. 1942	2.53	.80	5.06	.70	9.09	.90	3.24	4.14
	Feb. 1941	1.19	.10	3.62	.34	5.25	1.04	3.74	4.78
Cast-iron pipe.....	Feb. 1942	1.28	.25	.15	.46	2.14	.59	2.38	2.97
	Jan. 1942	1.25	.40	.38	.58	2.61	1.06	2.00	3.06
	Feb. 1941	1.09	.17	1.31	.36	2.93	.44	1.96	2.40
Cement.....	Feb. 1942	1.15	.11	2.69	.57	4.52	.61	2.17	2.78
	Jan. 1942	1.20	.12	3.51	.67	5.50	.66	2.26	2.92
	Feb. 1941	.46	.06	4.75	.42	5.69	3.68	2.12	5.80
Chemicals.....	Feb. 1942	1.66	.39	.39	.87	3.31	.32	4.71	5.03
	Jan. 1942	1.73	.38	.53	1.13	3.77	.30	5.45	5.75
	Feb. 1941	.97	.12	.40	.41	1.90	1.51	2.32	3.83
Cigars and cigarettes.....	Feb. 1942	3.48	.05	1.09	.36	4.98	1.93	3.16	5.09
	Jan. 1942	3.63	.14	1.96	.36	6.09	4.08	3.11	7.19
	Feb. 1941	1.77	.08	.63	.20	2.68	2.79	1.47	4.26
Cotton manufacturing.....	Feb. 1942	3.60	.35	.62	.58	5.15	1.25	4.99	6.24
	Jan. 1942	3.37	.33	1.06	.63	5.39	1.31	5.18	6.49
	Feb. 1941	2.53	.29	.95	.40	4.17	1.10	4.18	5.28
Dyeing and finishing textiles.....	Feb. 1942	2.98	.32	.48	.70	4.48	1.27	4.37	5.64
	Jan. 1942	2.98	.36	.92	.87	5.13	1.36	4.04	5.40
	Feb. 1941	2.25	.24	.95	.65	4.09	1.05	4.50	5.55
Flour.....	Feb. 1942	3.01	.59	.60	.44	4.64	.43	2.77	3.20
	Jan. 1942	2.45	.07	1.89	.87	5.28	.63	4.82	5.45
	Feb. 1941	.85	.35	1.55	.43	3.18	.66	1.74	2.40
Foundries and machine shops.....	Feb. 1942	2.30	.40	.88	.64	4.22	.54	5.19	5.73
	Jan. 1942	2.33	.45	1.07	.77	4.62	.77	6.23	7.00
	Feb. 1941	1.50	.37	1.04	.46	3.37	.55	6.07	6.62
Furniture.....	Feb. 1942	3.37	.38	1.95	.79	6.49	1.34	4.19	5.53
	Jan. 1942	3.00	.40	3.07	.94	7.41	1.12	3.71	4.83
	Feb. 1941	1.60	.19	2.21	.33	4.33	1.30	3.27	4.57
Glass.....	Feb. 1942	1.51	.22	3.23	.78	5.74	1.26	2.94	4.20
	Jan. 1942	1.83	.23	1.59	.92	4.57	.55	2.91	3.46
	Feb. 1941	.94	.09	2.06	.50	3.59	.83	2.52	3.35
Hardware.....	Feb. 1942	4.16	.39	1.32	.60	6.47	.74	5.29	6.03
	Jan. 1942	4.17	.38	2.43	.78	7.76	.83	7.20	8.03
	Feb. 1941	2.28	.33	1.01	.66	4.28	.81	4.73	5.54
Iron and steel.....	Feb. 1942	1.52	.12	.40	.83	2.87	.71	2.51	3.22
	Jan. 1942	1.44	.13	.47	1.12	3.16	.55	2.62	3.17
	Feb. 1941	.76	.09	.27	.43	1.55	.38	2.37	2.75
Knit goods.....	Feb. 1942	2.88	.26	1.05	.34	4.53	1.11	2.99	4.10
	Jan. 1942	2.61	.22	1.50	.27	4.60	1.07	2.73	3.80
	Feb. 1941	1.43	.09	1.21	.13	2.86	.99	1.88	2.87
Leather.....	Feb. 1942	1.21	.24	.82	.71	2.98	.47	3.57	4.04
	Jan. 1942	1.20	.14	1.04	.68	3.06	.41	2.36	2.77
	Feb. 1941	.49	.05	.39	.26	1.19	.41	2.50	2.91
Lighting equipment.....	Feb. 1942	2.44	.29	5.06	.78	8.57	3.10	3.33	6.43
	Jan. 1942	3.41	.25	1.46	1.05	6.17	3.97	4.52	8.49
	Feb. 1941	1.80	.34	1.07	.40	3.61	.30	5.71	6.01
Men's clothing.....	Feb. 1942	2.28	.20	.63	.23	3.34	1.08	3.03	4.11
	Jan. 1942	1.94	.11	1.15	.19	3.39	2.79	2.77	5.56
	Feb. 1941	1.24	.25	1.04	.13	2.66	1.18	3.17	4.35
Paints and varnishes.....	Feb. 1942	2.41	.29	1.79	.80	5.29	.25	3.62	3.87
	Jan. 1942	2.23	.25	.55	.98	4.01	.33	3.37	3.70
	Feb. 1941	.89	.25	.80	.45	2.39	.50	3.80	4.30

<sup>1</sup> No individual industry data are shown unless reports cover at least 25 percent of industrial employment.<sup>2</sup> Military separations included.



TABLE 2.—Monthly Turn-Over Rates (per 100 Employees) of Factory Workers in 42 Manufacturing Industries—Continued

Industry	Date	Separation rates					Accession rates		
		Quit	Discharge	Lay-off	Miscellaneous separation	Total separation	Re-hiring	New hiring	Total accession
Paper and pulp.....	Feb. 1942	2.05	.35	.68	.75	3.83	.47	3.69	4.16
	Jan. 1942	1.80	.16	.60	.88	3.44	.38	3.66	4.04
	Feb. 1941	.75	.12	.59	.49	1.95	.44	2.25	2.69
Petroleum.....	Feb. 1942	.63	.06	.65	.71	2.05	.24	1.86	2.10
	Jan. 1942	.75	.05	.38	.82	2.00	.33	2.53	2.86
	Feb. 1941	.52	.06	.80	.30	1.68	.74	1.61	2.35
Planing mills.....	Feb. 1942	3.74	.25	1.17	.93	6.09	2.63	3.79	6.42
	Jan. 1942	3.02	.47	2.38	.95	6.82	1.67	4.08	5.75
	Feb. 1941	1.73	.35	1.03	.51	3.62	1.37	2.47	3.84
Printing: Book and job.....	Feb. 1942	2.12	.21	2.57	.59	5.49	1.15	3.51	4.66
	Jan. 1942	2.28	.19	2.87	.63	5.97	1.41	4.40	5.81
	Feb. 1941	.84	.14	2.81	.34	4.13	2.18	2.73	4.91
Printing: Newspapers and periodicals.....	Feb. 1942	.60	.17	1.01	.54	2.32	.68	1.36	2.04
	Jan. 1942	.71	.10	2.51	.54	3.86	.74	1.91	2.65
	Feb. 1941	.28	.03	1.07	.26	1.64	1.09	1.23	2.32
Radios and phonographs.....	Feb. 1942	3.18	.43	1.55	.65	5.81	.94	5.22	6.16
	Jan. 1942	3.49	.37	2.90	.58	7.34	.78	5.82	6.60
	Feb. 1941	1.77	.07	5.36	.32	7.52	1.43	3.11	4.54
Rayon and allied products.....	Feb. 1942	1.00	.20	.45	.65	2.30	.23	2.74	2.97
	Jan. 1942	.83	.19	.80	.88	2.70	.43	1.42	1.85
	Feb. 1941	1.06	.15	.30	.74	2.25	1.22	2.47	3.69
Rubber boots and shoes.....	Feb. 1942	3.37	.95	1.25	.86	6.43	2.32	3.52	5.84
	Jan. 1942	3.08	.13	4.46	1.11	8.78	4.40	1.24	5.64
	Feb. 1941	1.44	.35	3.06	.61	5.45	.98	2.12	3.10
Rubber tires.....	Feb. 1942	1.33	.05	4.05	.60	6.03	1.97	4.33	6.30
	Jan. 1942	1.24	.05	7.14	1.62	10.05	1.76	2.72	4.48
	Feb. 1941	.71	.05	.28	.36	1.40	1.78	2.07	3.85
Sawmills.....	Feb. 1942	4.31	.35	1.89	.98	7.53	1.85	5.36	7.21
	Jan. 1942	3.27	.33	2.08	.85	6.53	3.40	5.19	8.59
	Feb. 1941	1.52	.17	2.79	.35	4.83	1.62	2.44	4.66
Silk and rayon goods.....	Feb. 1942	3.32	.43	.95	.53	5.23	1.14	4.50	5.64
	Jan. 1942	2.98	.45	1.27	.65	5.35	1.45	4.35	5.80
	Feb. 1941	1.50	.21	2.22	.34	4.27	1.60	2.93	4.53
Slaughtering and meat packing.....	Feb. 1942	2.31	.31	10.19	1.05	13.86	4.56	2.49	7.05
	Jan. 1942	2.44	.35	5.35	1.23	9.37	4.85	8.53	13.38
	Feb. 1941	.82	.15	8.30	.68	9.95	5.25	1.25	6.50
Stamped and enameled ware....	Feb. 1942	3.97	.38	3.43	.91	8.69	1.32	4.85	6.17
	Jan. 1942	4.51	.44	3.08	.97	9.00	5.33	5.21	10.54
	Feb. 1941	1.67	.34	2.59	.58	5.18	1.04	5.55	6.59
Steam and hot-water heating apparatus.....	Feb. 1942	2.16	.34	.96	.78	4.24	.42	3.60	4.02
	Jan. 1942	2.83	.37	1.11	1.16	5.47	.66	4.37	5.03
	Feb. 1941	2.05	.21	.62	.55	3.43	.67	3.50	4.17
Stoves.....	Feb. 1942	3.72	.21	3.62	.60	8.15	1.76	2.77	4.53
	Jan. 1942	3.93	.25	5.19	.93	10.30	2.52	2.24	4.76
	Feb. 1941	1.63	.14	1.94	.39	4.10	2.09	5.21	7.30
Structural and ornamental metal work.....	Feb. 1942	1.91	.38	1.39	.64	4.32	.39	5.97	6.36
	Jan. 1942	2.08	.29	1.57	.86	4.80	.61	6.84	7.45
	Feb. 1941	1.27	.18	1.19	.58	3.22	.73	6.88	7.61
Textile machinery.....	Feb. 1942	2.83	.21	.29	.93	4.26	.23	4.82	5.05
	Jan. 1942	3.11	.19	.21	1.14	4.65	.38	4.85	5.23
	Feb. 1941	1.29	.10	.08	.51	1.98	.23	5.52	5.75
Tools (not including edge tools, machine tools, files, and saws).....	Feb. 1942	2.90	.53	.47	.79	4.69	.64	4.45	5.09
	Jan. 1942	3.25	.52	.38	.86	5.01	.35	5.63	5.98
	Feb. 1941	1.70	.41	.36	.37	2.84	.59	5.68	6.27
Woolen and worsted goods.....	Feb. 1942	2.73	.16	2.52	.67	6.08	1.13	2.52	3.65
	Jan. 1942	2.86	.24	2.24	.83	6.17	.98	2.57	3.55
	Feb. 1941	2.17	.14	1.27	.49	4.07	1.97	4.55	6.52

The complete details on labor turn-over in strategic war industries have been withdrawn from publication. However, in table 3 are given the quit rates in the following industries: Aircraft; shipbuilding; machine tools; brass, bronze, and copper products; foundries and machine shops; electrical machinery; and iron and steel.

TABLE 3.—Monthly Quit Rates (per 100 Employees) in Selected War Industries

Industry	Quit rates		
	February 1942	January 1942	February 1941
Aircraft.....	2.68	2.82	2.21
Shipbuilding.....	3.27	3.25	1.85
Machine tools.....	2.23	2.46	1.58
Brass, bronze, and copper products.....	2.45	2.30	1.42
Foundries and machine shops.....	2.30	2.33	1.50
Electrical machinery.....	1.78	2.05	1.05
Iron and steel.....	1.52	1.44	.76

# Building Operations

## SUMMARY OF BUILDING CONSTRUCTION IN PRINCIPAL CITIES, MARCH 1942<sup>1</sup>

CURTAILMENT of private building caused a 1-percent decrease in permit valuations for March 1942 as compared with the total for the corresponding month of 1941. The volume of Federal contracts increased, however, and accounted for a large share of the 19-percent increase in permit valuation for new nonresidential construction over the 12-month interval. Decreases in both private and public housing were responsible for the reduction of 13 percent in permit valuations for new residential construction.

An unusually large amount of Federal construction was contracted for during February, and the lower volume in March caused a contra-seasonal decline in total permit valuations of 20 percent. Permit valuations for all new nonresidential construction decreased 34 percent and for residential construction, 13 percent; but valuations for additions, alterations, and repairs gained 28 percent.

### *Comparison of March 1942 with March 1941 and February 1942*

The volume of building construction in 2,533 identical cities with populations of 500 and over which reported to the Bureau of Labor Statistics in February and March 1942 and March 1941 is summarized in table 1.

TABLE 1.—*Summary of Building Construction for Which Permits Were Issued in 2,533 Identical Cities, March 1942*

Class of construction	Number of buildings			Permit valuation		
	March 1942	Percentage change from—		March 1942	Percentage change from—	
		February 1942	March 1941		February 1942	March 1941
All construction.....	62,158	+24.9	-7.9	\$220,706,160	-20.4	-1.0
New residential.....	23,746	-.1	-6.3	102,037,784	-13.4	-13.2
New nonresidential.....	8,050	+35.9	-22.3	90,332,791	-34.2	+18.5
Additions, alterations and repairs.....	30,353	+51.2	-4.6	28,335,585	+28.0	-2.7

The number of new dwelling units for which permits were issued and the permit valuation of such new housekeeping residential construction in the 2,533 cities reporting in March 1942 are presented in table 2. Percentage changes between March 1942 and February 1942 and March 1941 are also shown.

<sup>1</sup> More detailed information by geographic divisions and population groups is contained in a separate mimeographed release entitled "Building Construction, March 1942," copies of which will be furnished upon request.



TABLE 2.—Number and Permit Valuation of New Dwelling Units in 2,533 Identical Cities, March 1942, by Source of Funds and Type of Building

Source of funds and type of dwelling	Number of dwelling units			Permit valuation		
	March 1942	Percentage change from—		March 1942	Percentage change from—	
		February 1942	March 1941		February 1942	March 1941
All dwellings.....	28,695	-16.8	-8.2	\$100,663,709	-13.8	-13.1
Privately financed.....	26,141	+30.7	-7.3	90,371,579	+32.5	-14.4
1-family.....	20,261	+47.7	-5.4	74,876,086	+45.7	-13.4
2-family <sup>1</sup> .....	1,769	+36.2	-14.9	4,843,565	+49.7	-10.2
Multifamily <sup>2</sup> .....	4,111	-17.5	-12.5	10,651,928	-21.7	-22.5
Publicly financed.....	2,554	-82.4	-16.9	10,292,130	-78.8	+1.1

<sup>1</sup> Includes 1- and 2-family dwellings with stores.<sup>2</sup> Includes multifamily dwellings with stores.

### Comparison of First 3 Months of 1941 and 1942

Permit valuations reported in the first quarter of 1941 and 1942 are compared in table 3.

TABLE 3.—Permit Valuation of Building Construction, First 3 Months of 1941 and 1942, by Class of Construction <sup>1</sup>

Class of construction	Permit valuation		
	First 3 months of—		Percentage change
	1942	1941	
All construction.....	\$624,216,792	\$601,391,491	+3.8
New residential.....	281,076,370	298,876,502	-6.0
New nonresidential.....	267,796,985	226,173,440	+18.4
Additions, alterations, and repairs.....	75,343,437	76,341,549	-1.3

<sup>1</sup> Based on reports from cities with a population of 500 and over, the cities being identical for any given month of both years.

The number and permit valuation of new dwelling units for which permits were issued in the first 3 months of 1942 are compared with similar data for the corresponding months of 1941 in table 4.

TABLE 4.—Number and Permit Valuation of New Dwelling Units, First 3 Months of 1941 and 1942, by Source of Funds and Type of Dwelling <sup>1</sup>

Source of funds and type of dwelling	Number of dwelling units			Permit valuation		
	First 3 months of—		Percentage change	First 3 months of—		Percentage change
	1942	1941		1942	1941	
All dwellings.....	80,865	81,382	-0.6	\$278,472,951	\$296,025,679	-5.9
Privately financed.....	61,053	60,665	-12.5	210,590,288	258,508,203	-18.5
1-family.....	45,983	50,690	-9.3	171,994,751	204,246,860	-15.8
2-family <sup>2</sup> .....	4,220	4,670	-9.6	10,688,642	11,633,642	-8.1
Multifamily <sup>2</sup> .....	10,850	14,305	-24.2	27,915,895	42,627,701	-34.5
Publicly financed.....	19,812	11,717	+69.1	67,873,663	37,517,476	+80.9

<sup>1</sup> Based on reports from cities with a population of 500 and over, the cities being identical for any given month of both years.<sup>2</sup> Includes 1- and 2-family dwellings with stores.<sup>3</sup> Includes multifamily dwellings with stores.

### Construction from Public Funds, March 1942

The value of contracts awarded and force-account work started during February and March 1942 and March 1941 on all construction projects financed wholly or partially from Federal funds is shown in table 5. This table includes other types of construction as well as building construction, both inside and outside 2,533 reporting cities.

TABLE 5.—*Value of Contracts Awarded and Force-Account Work Started on Construction Projects Financed from Federal Funds, February and March 1942 and March 1941*<sup>1</sup>

Appropriation	Contracts awarded and force-account work started		
	March 1942	February 1942 <sup>2</sup>	March 1941 <sup>3</sup>
Total.....	\$1,494,182,791	\$745,873,741	\$794,062,189
Defense Public Works.....	11,404,200	6,406,300	( <sup>3</sup> )
Federal agency projects under the WPA.....	0	0	23,905
Regular Federal appropriations.....	1,467,372,849	711,893,936	785,306,212
U. S. Housing Authority.....	15,405,742	27,573,505	8,732,072

<sup>1</sup> Preliminary, subject to revision.

<sup>2</sup> Revised.

<sup>3</sup> Program not started until October 1941.

The value of all contracts awarded for public buildings and highway construction to be financed wholly from State funds, as reported by the State governments for February and March 1942 and March 1941, was as follows:

Month	Public buildings	Highway construction
March 1942.....	\$696,273	\$7,967,464
February 1942.....	470,052	6,770,862
March 1941.....	1,630,459	7,041,671

### Coverage of Building Permit Statistics

Building-permit data are collected by the Bureau of Labor Statistics directly from local building officials, except in the States of Illinois, Massachusetts, New Jersey, New York, North Carolina, and Pennsylvania, where State departments of labor collect and forward the data to the Bureau. Reports are obtained each month from more than 2,500 places having a population of 500 or more in 1940, from which are selected those for cities which also reported in the preceding month and in the corresponding month of the previous year. The resulting tabulations of identical cities cover practically all cities with a population of 50,000 or more; the completeness of the coverage of cities in the remaining population groups decreases with the size of city.

In addition, the Bureau receives notifications of the value of construction contracts awarded by Federal and State Governments. Federal and State building construction in the 2,533 reporting cities totaled \$67,163,000 in March 1942, as contrasted with \$167,437,000 in the previous month and \$45,802,000 in March 1941.

The permit-valuation figures represent estimates of construction costs made by prospective builders when applying for permits to build, in the case of privately financed construction, and the value of contracts awarded, in the case of construction financed with Federal or State funds. No land costs are included. Only building construction within the corporate limits of the reporting cities is included in the tabulations.

# Retail Prices

## FOOD PRICES IN MARCH 1942

RETAIL costs of food advanced 1.5 percent between February 17 and March 17, 1942, largely as a result of increases in prices of pork, fruit, and canned vegetables. Substantially higher prices were also reported for lard and other shortening, coffee, tea, rice, and rolled oats. Butter and eggs were seasonally lower, and several fresh vegetables dropped in price as new supplies came on the market. On March 17, 1942, the Bureau's index of retail food costs, at 118.6 percent of the 1935-39 average, was 20.5 percent higher than in March 1941, and 26.8 percent above pre-war levels.

By the end of March preliminary reports indicated further advances for flour, canned tomatoes, canned salmon, oranges, lard, and sugar. Fresh pork prices dropped, however, and round steak, cabbage, and eggs continued to decline in price.

The percentage change in retail costs of food on March 17, 1942, compared with costs 1 month ago, 1 year ago, and in August 1939, before the outbreak of the war in Europe, is presented in table 1.

TABLE 1.—Changes in Retail Costs of Food in 51 Large Cities Combined, by Commodity Groups

Commodity group	Percentage change, Mar. 17, 1942, com- pared with—			Commodity group	Percentage change, Mar. 17, 1942, com- pared with—		
	1942	1941	1939		1942	1941	1939
	Feb. 17	Mar. 18	Aug. 15		Feb. 17	Mar. 18	Aug. 15
All foods.....	+1.5	+20.5	+26.8	Dairy products.....	-0.1	+16.3	+30.7
Cereals and bakery products.....	+1.5	+10.2	+12.2	Eggs.....	-5.8	+35.1	+23.6
Meats.....	+1.7	+17.6	+25.9	Fruits and vegetables.....	+4.9	+27.2	+33.7
Beef and veal.....	-2	+9.6	+20.2	Fresh.....	+5.0	+26.2	+33.4
Pork.....	+6.0	+31.3	+33.5	Canned.....	+5.4	+30.6	+31.9
Lamb.....	-5	+9.9	+10.0	Dried.....	+2.0	+28.8	+41.6
Chickens.....	+1.4	+11.9	+18.6	Beverages.....	+2.0	+27.9	+26.0
Fish, fresh and canned.....	+8	+33.0	+50.5	Fats and oils.....	+2.5	+43.7	+38.2
				Sugar.....	+6	+31.0	+34.4

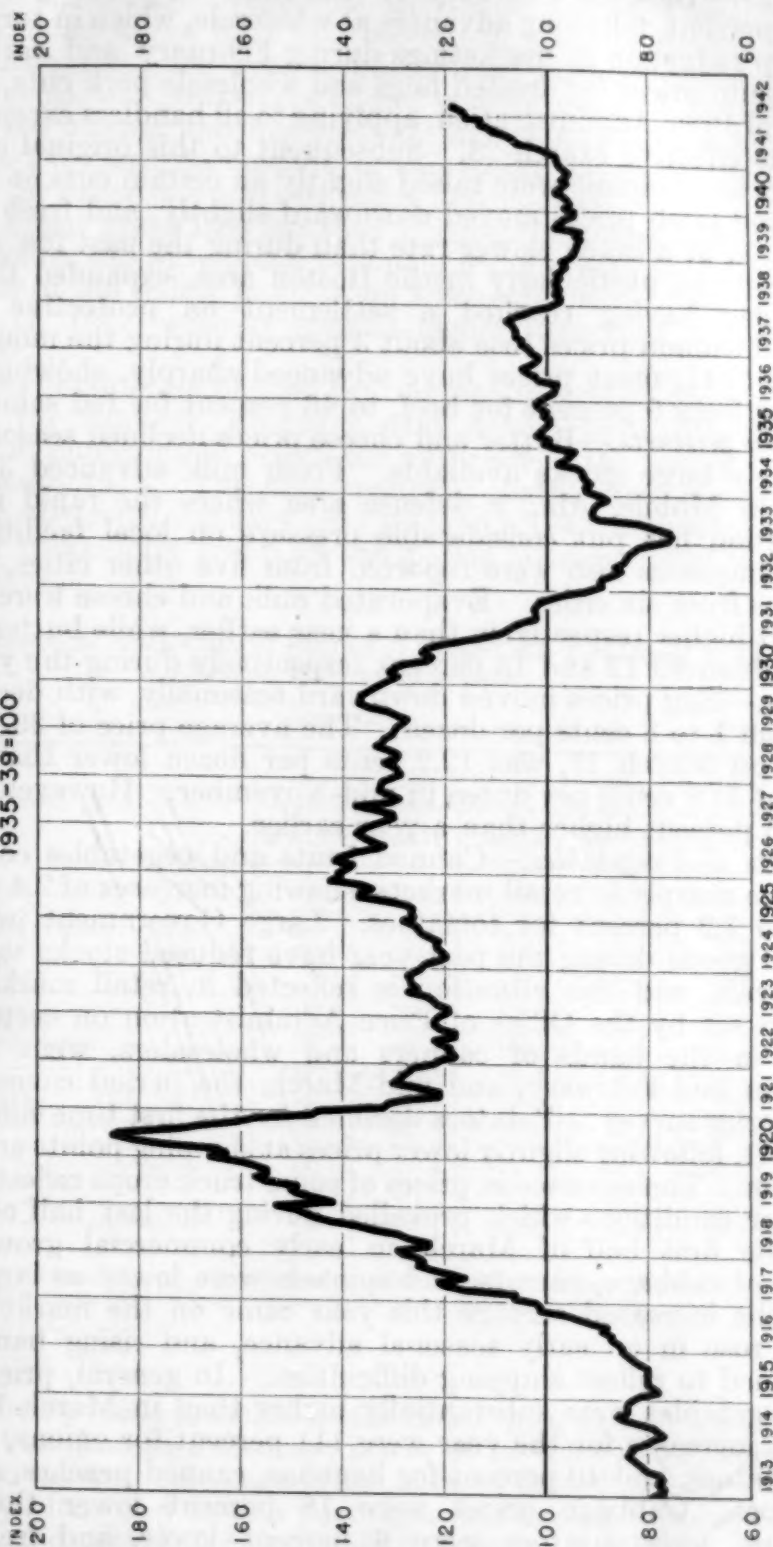
### Details by Commodity Groups

*Cereals and bakery products.*—Retail prices of bread advanced slightly in 16 cities and declined in one, Houston, where a 24-ounce loaf of bread was placed on sale in some markets at 15 cents. Prices of other cereals and bakery products continued to rise. Rice and rolled oats in particular advanced sharply. Since March 1941 the



# RETAIL COST OF ALL FOODS AVERAGE FOR 51 LARGE CITIES

1935-39=100



UNITED STATES BUREAU OF LABOR STATISTICS

average retail price of rice has jumped 47 percent, reflecting a current shortage.

**Meats.**—Between February 17 and March 17, retail prices of pork rose 6 percent, following advances at wholesale, which in turn reflected a sharp reduction in marketings during February and early March. Maximum prices for dressed hogs and wholesale pork cuts, set by the Office of Price Administration, applying to all handlers except retailers, became effective March 23. Subsequent to this original order, price ceilings at wholesale were raised slightly on certain cuts on March 31. Beef and lamb prices moved downward slightly, and fresh fish prices advanced at a much slower rate than during the past few months, as fishing fleets, particularly in the Boston area, expanded their activities after having reached a settlement on protective measures. Canned salmon prices rose about 3 percent during the month. Since March 1941, meat prices have advanced sharply, showing increases ranging from 9 percent for beef, to 46 percent for red salmon.

**Dairy products.**—Butter and cheese prices declined seasonally, with relatively large stocks available. Fresh milk advanced 3 cents per quart in Mobile, Ala., a defense area where the rapid increase in population has put considerable pressure on local facilities. Fractional increases also were reported from five other cities, and slight declines from six cities. Evaporated milk and cheese were 24 and 30 percent higher respectively than a year earlier, while butter and fresh milk advanced 12 and 15 percent respectively during the year.

**Eggs.**—Egg prices moved downward seasonally, with declines ranging from 1 to 8 cents per dozen. The average price of 39.7 cents per dozen on March 17, was 12.2 cents per dozen lower than the peak price of 51.9 cents per dozen in mid-November. However, they were still 35 percent higher than a year earlier.

**Fruits and vegetables.**—Canned fruits and vegetables continued to advance sharply in retail markets, showing increases of 2.4 percent for corn to 7.2 percent for tomatoes. Large Government purchases of canned goods during the past year have reduced stocks to unusually low levels, and this situation is reflected in retail markets. Price ceilings set by the Office of Price Administration on certain canned goods in the hands of canners and wholesalers, went into effect between mid-February, and mid-March, the period covered by this retail price survey. Potatoes declined for the first time since September 1941, following slightly lower prices at shipping points and terminal markets. The advance in prices of some truck crops reflected adverse weather conditions which prevailed during the last half of February and the first half of March, in early commercial growing areas. Prices of cabbage, carrots, and spinach were lower as large supplies from the increased acreage this year came on the market. Orange prices rose in an early seasonal advance, and rising banana prices continued to reflect shipping difficulties. In general, prices of fruits and vegetables were substantially higher than in March 1941. The largest increases for the year were 111 percent for onions, 63 percent for potatoes, and 40 percent for bananas, canned peaches, and canned tomatoes. Cabbage prices were 18 percent lower than a year previous, sweetpotatoes were 6 percent lower, and fresh spinach showed no change.

**Beverages.**—Prices of coffee, tea, and cocoa continued to advance at a somewhat slower rate than in recent months. Packaging difficulties,

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short supplies, and increased distribution costs have been important factors in price movements of these beverages.

**Fats and oils.**—Lard, vegetable shortening, salad dressing, and oleomargarine advanced by 2 to 3 percent in price during the month ending March 17, while peanut butter rose about 8 percent as a shortage developed. Government and civilian demand for fats and oils continued strong, and has been an important factor in increases of 73 percent for lard, 68 percent for shortening in cartons, and 23 to 41 percent for other fats and oils, since March 1941.

**Sugar.**—Sugar prices rose less than 1 percent as prices became more stabilized under the widespread rationing being practiced by retailers, and because of the ceiling in effect on wholesale prices. Sugar prices on March 17, 1942, were 31 percent higher than they were a year earlier.

Indexes of retail costs of food by commodity groups are presented in table 2 for January, February, and March 1942, March 1941, August 1939, immediately before the outbreak of the war in Europe, and for March 1929. The accompanying charts show the trend in the costs of all foods, January 1913 to March 1942, inclusive, and for each major commodity group for the period January 1929 to March 1942, inclusive.

TABLE 2.—*Indexes of Retail Costs of Food in 51 Large Cities Combined,<sup>1</sup> by Commodity Groups, in Specified Months*

[1935-39=100]

Commodity group	1942			1941	1939	1929
	Mar. 17 <sup>2</sup>	Feb. 17	Jan. 13	Mar. 18	Aug. 15	Mar. 15
All foods.....	118.6	116.8	116.2	98.4	93.5	128.4
Cereals and bakery products.....	104.8	104.3	103.2	95.1	93.4	107.6
Meats.....	120.5	118.5	116.4	102.5	95.7	124.4
Beef and veal.....	119.7	119.9	120.4	109.2	99.6	( <sup>3</sup> )
Pork.....	117.5	110.9	107.2	89.5	88.0	( <sup>3</sup> )
Lamb.....	108.7	109.2	111.8	98.9	98.8	( <sup>3</sup> )
Chickens.....	112.2	110.7	107.3	100.3	94.6	( <sup>3</sup> )
Fish, fresh and canned.....	158.9	157.7	145.1	119.5	99.6	( <sup>3</sup> )
Dairy products.....	121.7	121.8	121.5	104.6	93.1	133.9
Eggs.....	112.1	119.0	130.9	83.0	90.7	124.2
Fruits and vegetables.....	123.5	117.7	117.2	97.1	92.4	149.3
Fresh.....	123.8	117.9	119.0	98.1	92.8	149.9
Canned.....	120.8	114.6	108.6	92.5	91.6	124.8
Dried.....	127.9	125.4	121.8	99.3	90.3	167.0
Beverages.....	119.6	117.2	115.5	93.5	94.9	166.1
Fats and oils.....	116.8	114.0	110.6	81.3	84.5	128.1
Sugar.....	128.5	127.7	118.5	98.1	95.6	112.6

<sup>1</sup> Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined with the use of population weights.

<sup>2</sup> Preliminary.

<sup>3</sup> Not available.

<sup>4</sup> Revised.

Among the 54 foods included in the index, prices of 35 were higher in March 1942 than in February; prices of 10 were lower; and for 9 there was no change. Average prices of 50 of these foods were higher on March 17 than they were a year ago, cabbage and sweetpotatoes were lower, and corn flakes and spinach were unchanged.

Average prices of 65 foods in 51 cities combined are shown in table 3 for March and February 1942 and March 1941.



TABLE 3.—Average Retail Prices of 65 Foods in 51 Large Cities Combined, March and February 1942 and March 1941

Article	1942		1941
	March 17 <sup>1</sup>	February 17	March 18
<b>Cereals and bakery products:</b>			
<b>Cereals:</b>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Flour, wheat.....10 pounds.....	51.9	51.8	41.7
Macaroni.....pound.....	14.2	14.1	13.8
Wheat cereal <sup>2</sup> .....28-oz. pkg.....	24.1	24.0	23.4
Corn flakes.....8 ounces.....	7.2	7.2	7.2
Corn meal.....pound.....	4.7	4.6	4.2
Rice <sup>3</sup> .....do.....	11.9	11.3	8.1
Rolled oats <sup>4</sup> .....do.....	9.2	8.3	7.1
<b>Bakery products:</b>			
Bread, white.....do.....	8.7	8.7	7.8
Bread, whole-wheat.....do.....	9.5	9.5	8.8
Bread, rye.....do.....	9.6	9.6	9.1
Vanilla cookies.....do.....	27.1	26.7	25.3
Soda crackers.....do.....	16.4	16.2	15.0
<b>Meats:</b>			
<b>Beef:</b>			
Round steak.....do.....	42.0	42.1	38.0
Rib roast.....do.....	32.8	33.1	31.2
Chuck roast.....do.....	28.6	28.4	25.1
<b>Veal:</b>			
Cutlets.....do.....	52.2	51.9	46.2
<b>Pork:</b>			
Chops.....do.....	40.0	36.8	29.6
Bacon, sliced.....do.....	38.4	37.3	32.0
Ham, sliced <sup>5</sup> .....do.....	57.7	55.8	46.5
Ham, whole.....do.....	37.0	35.5	27.6
Salt pork.....do.....	22.8	21.3	17.8
<b>Lamb:</b>			
Leg.....do.....	31.4	31.2	27.7
Rib chops.....do.....	37.5	38.0	35.3
<b>Poultry:</b>			
Roasting chickens.....do.....	35.7	35.2	32.1
<b>Fish:<sup>6</sup></b>			
Salmon, pink.....16-oz. can.....	21.4	20.8	16.2
Salmon, red <sup>7</sup> .....do.....	39.2	38.4	26.9
<b>Dairy products:</b>			
Butter.....pound.....	42.2	42.5	37.6
Cheese.....do.....	34.9	35.1	26.7
Milk, fresh (delivered).....quart.....	15.1	15.1	13.0
Milk, fresh (store).....do.....	13.6	13.6	11.9
Milk, fresh (delivered and store) <sup>8</sup> .....do.....	14.6	14.5	12.7
Milk, evaporated.....14½-oz. can.....	8.8	8.8	7.1
Eggs.....dozen.....	39.7	42.2	29.4
<b>Fruits and vegetables:</b>			
<b>Fresh:</b>			
Apples.....pound.....	6.2	6.1	5.3
Bananas.....do.....	9.8	8.4	7.0
Oranges.....dozen.....	28.9	26.2	27.5
Grapefruit <sup>9</sup> .....each.....	4.8	4.8	( <sup>10</sup> )
Beans, green.....pound.....	21.3	18.7	20.2
Cabbage.....do.....	4.1	4.7	5.0
Carrots.....bunch.....	6.6	6.8	5.3
Lettuce.....head.....	9.8	8.5	8.1
Onions.....pound.....	7.6	7.0	3.6
Potatoes.....15 pounds.....	48.3	49.3	29.6
Spinach.....pound.....	7.0	7.5	7.0
Sweetpotatoes.....do.....	5.0	5.0	5.3
<b>Canned:</b>			
Peaches.....No. 2½ can.....	23.1	22.5	16.6
Pineapple.....do.....	26.3	25.2	21.0
Grapefruit juice <sup>11</sup> .....No. 2 can.....	9.9	9.9	( <sup>12</sup> )
Beans, green <sup>13</sup> .....do.....	13.6	13.1	10.2
Corn.....do.....	12.8	12.5	10.9
Peas.....do.....	15.6	15.1	13.4
Tomatoes.....do.....	11.9	11.1	8.5
<b>Dried:</b>			
Prunes.....pound.....	11.8	11.4	9.5
Navy beans.....do.....	9.0	9.0	6.5
<b>Beverages and chocolate:</b>			
Coffee.....do.....	27.9	27.3	21.4
Tea.....¼ pound.....	21.3	20.7	17.7
Cocoa <sup>14</sup> .....8-oz. can.....	10.0	9.8	9.1

See footnotes at end of table.

TABLE 3

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TABLE 3.—Average Retail Prices of 65 Foods in 51 Large Cities Combined, March and February 1942 and March 1941—Continued

Article	1942		1941
	March 17 <sup>1</sup>	February 17	March 18
	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Fats and oils:			
Lard.....pound..	16.6	16.2	9.6
Shortening, other than lard:			
In cartons.....do.....	19.3	18.8	11.5
In other containers.....do.....	25.2	24.7	18.4
Salad dressing.....pint.....	24.7	24.1	20.1
Oleomargarine.....pound.....	22.0	21.3	15.6
Peanut butter.....do.....	23.4	21.7	17.7
Sugar and sweets:			
Sugar.....10 pounds.....	69.3	68.6	52.7
Corn syrup <sup>2</sup> .....24-oz. can.....	14.4	14.3	13.6
Molasses <sup>3</sup> .....18-oz. can.....	14.2	<sup>3</sup> 13.9	13.4

<sup>1</sup> Preliminary.<sup>2</sup> Not included in index.<sup>3</sup> Revised.<sup>4</sup> Average prices of fresh and/or frozen fish included in index.<sup>5</sup> Priced first time on Oct. 14, 1941.*Details by Regions and Cities*

Retail food costs advanced between February 17 and March 17 in all of the 51 cities covered by the Bureau of Labor Statistics' survey. The largest increases were reported for Mobile (4.6 percent), Kansas City (3.4 percent), and Scranton and Los Angeles (2.9 percent). The higher costs in these 4 cities were due to greater-than-average advances for meats and fresh fruits and vegetables. Large advances for milk and sugar in Mobile, and eggs in Los Angeles, also contributed to the higher costs. The smallest increases reported were: Boston and Columbus, 0.2 percent; Newark, 0.3 percent; and New York and Seattle, 0.6 percent. Costs of meats, sugar, and fruits and vegetables declined or advanced less than average in these 5 cities. Compared with a year ago, food costs were higher by 31.4 percent in Mobile, 28.1 in Springfield, Ill., and 26.1 in Portland, Oreg. The smallest advances in food costs during the year were in New York, 16.7 percent, Minneapolis, 17.1, and St. Paul, 17.6 percent.

Indexes of food costs by cities are presented in table 4 for March and February 1942 and March 1941.

TABLE 4.—Indexes of the Average Retail Cost of All Foods, by Cities,<sup>1</sup> March and February 1942 and March 1941  
[1935-39=100]

Region and city	1942		1941	Region and city	1942		1941
	March 17 <sup>2</sup>	February 17	March 18		March 17 <sup>2</sup>	February 17	March 18
United States.....	118.6	116.8	98.4	West North Central—Con.			
New England:				St. Louis.....	122.9	119.9	99.5
Boston.....	115.3	115.1	96.1	St. Paul.....	115.2	113.6	98.0
Bridgeport.....	118.6	116.7	96.8	South Atlantic:			
Fall River.....	118.2	115.4	98.4	Atlanta.....	118.4	<sup>4</sup> 116.1	96.7
Manchester.....	118.7	116.5	97.2	Baltimore.....	123.0	120.5	99.1
New Haven.....	118.0	115.8	96.3	Charleston, S. C.....	119.8	118.8	96.1
Portland, Maine.....	117.1	115.5	95.9	Jacksonville.....	124.3	121.3	99.0
Providence.....	117.3	114.9	97.0	Norfolk <sup>3</sup> .....	126.7	123.6	100.6
Middle Atlantic:				Richmond.....	118.4	117.4	94.4
Buffalo.....	121.5	119.6	100.8	Savannah.....	125.2	123.2	100.7
Newark.....	118.5	118.2	99.2	Washington, D. C.....	118.3	116.2	99.3
New York.....	116.5	115.8	99.8	East South Central:			
Philadelphia.....	115.7	114.5	95.2	Birmingham.....	117.8	117.0	95.3
Pittsburgh.....	117.8	116.3	98.5	Louisville.....	119.3	118.2	96.2
Rochester.....	118.4	116.8	100.1	Memphis.....	117.8	<sup>4</sup> 116.1	95.7
Seranton.....	117.6	114.3	97.6	Mobile.....	131.1	125.3	99.8
East North Central:				West South Central:			
Chicago.....	117.5	115.1	98.4	Dallas.....	115.6	114.7	93.5
Cincinnati.....	118.9	116.4	97.6	Houston.....	124.6	122.5	102.1
Cleveland.....	120.5	<sup>4</sup> 117.9	100.3	Little Rock.....	120.1	119.1	95.6
Columbus, Ohio.....	115.2	115.0	94.0	New Orleans.....	128.0	126.2	102.9
Detroit.....	118.4	<sup>4</sup> 116.5	98.4	Mountain:			
Indianapolis.....	120.8	119.6	98.8	Butte.....	118.3	<sup>4</sup> 116.4	98.3
Milwaukee.....	116.0	114.3	96.3	Denver.....	117.9	115.8	95.1
Peoria.....	123.6	121.2	100.3	Salt Lake City.....	120.0	<sup>4</sup> 118.8	98.4
Springfield, Ill.....	124.3	121.5	97.0	Pacific:			
West North Central:				Los Angeles.....	124.9	121.4	100.8
Kansas City.....	116.5	112.7	94.8	Portland, Ore.....	129.6	127.0	102.8
Minneapolis.....	117.3	115.4	100.2	San Francisco.....	121.9	120.1	100.6
Omaha.....	116.5	114.4	97.4	Seattle.....	126.7	126.0	102.4

<sup>1</sup> Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. Primary use is for time to time comparisons rather than place to place comparisons.

<sup>2</sup> Preliminary.

<sup>3</sup> Includes Portsmouth and Newport News.

<sup>4</sup> Revised.

### Average Annual Indexes of Retail Food Costs, 1913 to 1941

Annual average indexes of food costs for the years 1913 to 1941, inclusive, and monthly indexes for January 1941 to March 1942, inclusive, are shown in table 5.

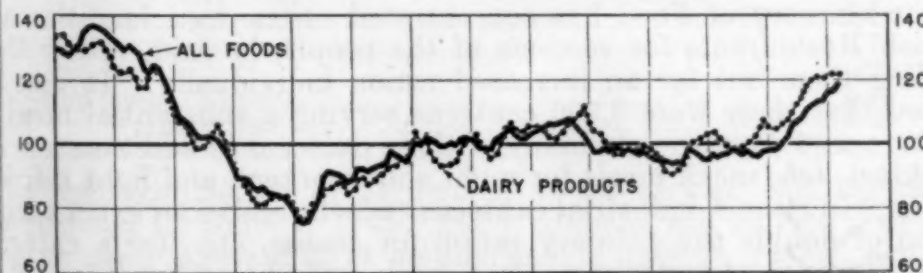
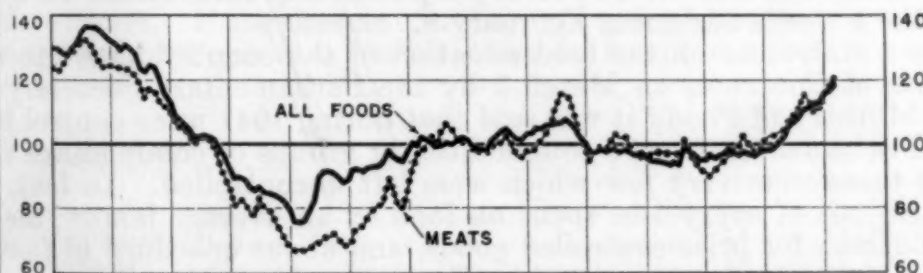
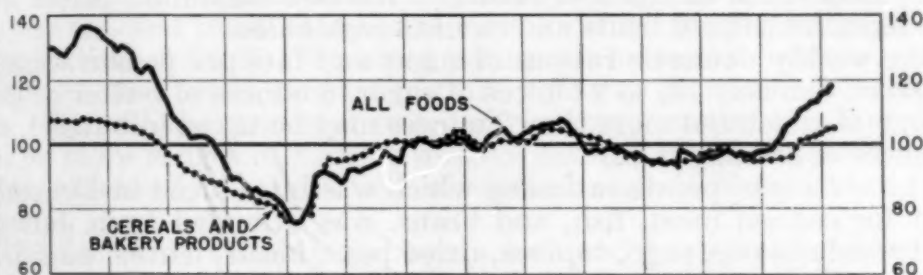
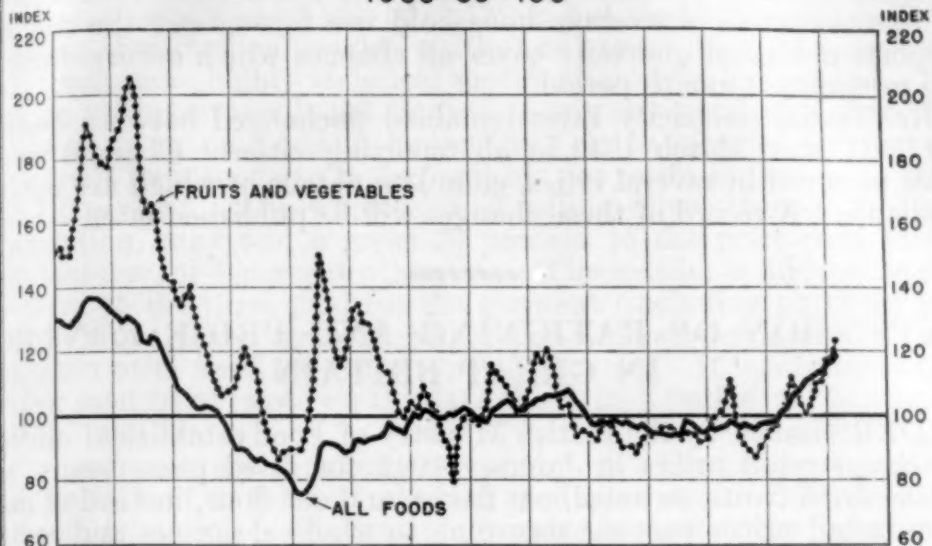
TABLE 5.—Indexes of Retail Food Costs in 51 Large Cities Combined, by Years From 1913 to 1941, and by Months, January 1941 to March 1942, Inclusive  
[1935-39=100]

Year	All-foods index	Year	All-foods index	Year and month	All-foods index	Year and month	All-foods index
1913.....	79.9	1927.....	132.3	1941.....	105.5	1942.....	
1914.....	81.8	1928.....	130.8	January.....	97.8	January.....	116.2
1915.....	80.9	1929.....	132.5	February.....	97.9	February.....	116.8
1916.....	90.8	1930.....	126.0	March.....	98.4	March.....	118.6
1917.....	116.9	1931.....	103.9	April.....	100.6		
1918.....	134.4	1932.....	86.5	May.....	102.1		
1919.....	149.8	1933.....	84.1	June.....	105.9		
1920.....	168.8	1934.....	93.7	July.....	106.7		
1921.....	128.3	1935.....	100.4	August.....	108.0		
1922.....	119.9	1936.....	101.3	September.....	110.7		
1923.....	124.0	1937.....	105.3	October.....	111.6		
1924.....	122.8	1938.....	97.8	November.....	113.1		
1925.....	132.9	1939.....	95.2	December.....	113.1		
1926.....	137.4	1940.....	96.6				



## RETAIL COST OF FOOD

1935-39 = 100



U.S. DEPT. OF LABOR - BUREAU OF LABOR STATISTICS

## ELECTRICITY AND GAS PRICES, MARCH 15, 1942

RESIDENTIAL rates for electricity are secured from 51 cities and for gas from 50 cities. These rates are used in the computation of monthly bills for amounts of consumption which have been selected as representative of average household use throughout the country. Reports published quarterly cover all changes which occurred during the preceding 3-month period.

Residential electricity rates remained unchanged between December 1941 and March 1942 in all reporting cities. Changes in gas rates occurred in several cities, complete details of which are not yet available. A record of these changes will be published later.

EXTENSION OF RATIONING AND PRICE CONTROL  
IN GREAT BRITAIN

ORDERS issued by the British Ministry of Food established uniform maximum retail prices in January 1942 for dried peas, beans, and lentils, dried fruits, oatmeal, oat flakes, and oat flour, instead of maximum retail prices varying according to wholesale prices and certain other items such as transport costs.<sup>1</sup> Revised maximum prices were also fixed for canned fruits and canned vegetables.

The weekly domestic rations of sugar and fats per person were reduced on January 12, to 8 ounces of sugar, 6 ounces of butter or margarine (of which not more than 2 ounces may be taken in butter), and 2 ounces of cooking fats.

The system of points rationing which was introduced in December 1941 for canned meat, fish, and beans, was extended from January 26, to include rice, sago, tapioca, dried peas, beans, lentils, and dried fruits, and the number of points per person was raised from 16 to 20 for the 4 weeks beginning February 9.

In a statement on the food situation of the country, made to the House of Commons on March 3 by the Parliamentary Secretary to the Ministry of Food,<sup>2</sup> it was said that during 1941 price control had been extended to over 60 commodities or groups of commodities and that there were very few which were left uncontrolled. In fact, he stated, out of every 10s. spent on food by an average family, about 7s. 6d. was for price-controlled goods, and about one-third of family purchases of foods are assisted by Government subsidy.

The Ministry of Food has concentrated on canteen facilities and British Restaurants for sections of the people, he said, rather than singling them out for an increased ration individually. It was reported that there were 5,500 canteens serving a substantial meal to workers on 6 days a week, many of these canteens in addition serving breakfast, tea, snack meals for night shift-workers, and light refreshments. In class A industrial canteens (which receive an extra special ration of double the ordinary ration for cheese, etc., for a catering establishment) 15,000,000 meals a week were being served; and in class B canteens (receiving rations half as much again as those of British Restaurants) 28,000,000 meals a week.

<sup>1</sup> Ministry of Labor Gazette (London), February 1942. For previous articles on the food situation and rationing see Monthly Labor Review, April 1941 (p. 833); December 1941 (p. 1401); and February 1942 (p. 461).

<sup>2</sup> Great Britain. House of Commons. Parliamentary Debates, London, March 3, 1942.

Limitation of the prices of clothing will be attained through the Utility Apparel Maximum Prices and Charges Order 1942,<sup>3</sup> which came into force on February 3. Under the order, cloth manufacturers must devote at least two-thirds of their output to "utility" cloth. At present, existing types of cloth may be used in making up the various categories of utility clothing, but the cloth must conform to certain standards of weight, width, and price. In the future, however, much more highly technical specifications will be imposed. The clothing manufacturer is not limited to any one particular style, but is allowed to use only one of the "utility" cloths specified for the type of garment he intends to make, and his net profit is limited to from 4 to 7½ percent. The wholesaler, if selling direct through his own organization, may add a gross 20 percent to the price paid to the manufacturer, or 5 percent otherwise. The retailer is allowed to add one-third to the price paid for the garment (including purchase tax) but the profit taken by both wholesaler and retailer is subject to a maximum price fixed for every type of garment. It is estimated that in a few months at least two-thirds of the British public will be wearing "utility" clothes.

The garment specifications issued by the Government cover a wide variety of articles of clothing and give minute details as to style and trimming. For example, a grocer's short white jacket must have three buttons down the front, three patch pockets, no buttons on the sleeves, and must be made of shrunk cloth; the maximum selling price is fixed at \$2.60. Specified yarn must be used in infants' socks, the maximum prices ranging from 15 cents to 20 cents according to size. For all the principal items of clothing, provision is made for two or more ranges of varying quality and price. The specifications cover practically every article of clothing except hats, gloves, and shoes.

The following statement shows a balanced yearly expenditure by a woman using the 66 coupons allotted to her, and the maximum cost of the articles. If the cheapest "utility" garments were bought in each case instead of the most expensive, the total would be \$30.20.

	Coupon value	Maximum "utility" price
Total.....	66	\$58. 20
Overcoat.....	14	21. 55
Woolen dress.....	11	15. 70
Sweater.....	5	2. 70
Skirt.....	7	5. 40
Nightdress (crepe satin).....	6	3. 75
Vest (crepe de chine).....	3	1. 75
Panties.....	3	. 95
Slip (crepe de chine).....	4	2. 60
6 pairs of stockings.....	12	3. 80
2 handkerchiefs.....	1	-----

An approximate cut of 25 percent in the civilian clothing ration is scheduled for June 1, 1942. Sixty coupons will be issued at that time to cover a period of 14 months ending July 31, 1943. The new coupons will be printed in three different colors—20 coupons for each—and the first group will be available until October 10. Any unused balance plus the 40 other coupons may be used in the remaining months of the ration period.

<sup>3</sup> Bulletins from Britain (New York, British Library of Information), March 25, 1942.



## Wholesale Prices

### WHOLESALE PRICES IN MARCH 1942

THE upward movement in commodity prices in primary markets continued through March, rounding out a 12-month period of steadily rising markets. With increases of approximately 1½ percent for farm products, foods, and textile products, the Bureau of Labor Statistics comprehensive index of nearly 900 price series rose 0.9 percent during March 1942 to the highest level since the autumn of 1928. At 97.6 percent of the 1926 average, the index was 20 percent higher than for March of last year. Measured by this index, prices of these commodities have risen 30 percent since August 1939 just prior to the outbreak of the war.

In addition to the increase of 1.6 percent for foods and 1.5 percent for farm products and textile products, hides and leather products advanced 1.2 percent. Increases of from 0.1 percent to 0.4 percent were recorded for chemicals and allied products, housefurnishing goods, metals and metal products, building materials, and miscellaneous commodities. Fuel and lighting materials declined slightly as a result of continued weaknesses in prices for petroleum products in the mid-Continent region.

Prices for nearly all commodities not controlled by the Government have risen substantially in the past year. Farm product prices led with a gain of nearly 44 percent since March 1941. During the year period prices for foods, textile products, and chemicals and allied products advanced more than 20 percent; hides and leather products, building materials, housefurnishing goods, and miscellaneous commodities, over 10 percent; and fuel and lighting materials and metals and metal products, less than 8 percent.

From the pre-war level of August 1939, prices for agricultural commodities rose over 68 percent; foods and textile products, more than 40 percent; chemicals and allied products, about 30 percent; and hides and leather products, building materials, miscellaneous commodities, and housefurnishing goods, from 20 to 25 percent. Average prices for metals and metal products were 11 percent higher than in August 1939, while fuel and lighting materials are 7 percent above their level preceding the outbreak of the war.

Sharp increases in prices for livestock, particularly hogs and sheep, during March were largely responsible for bringing the farm products group index to a 12-year peak, 102.8 percent of the 1926 average. Quotations were somewhat higher for cattle, live poultry, and for cotton, wool, hay, hops, seeds, tobacco, peanuts, onions, apples, and citrus fruits. Although corn advanced slightly, average prices for grains weakened, led by decreases of over 6 percent for rye and more than 2 percent for barley, oats, and wheat. Marked declines also

occurred in prices for eggs, fresh milk in the Chicago market, dried beans, and potatoes.

Average prices for foods in primary markets reached the highest level since the spring of 1930. Marked increases in prices for meats (largely pork), processed and raw fruits and vegetables, canned salmon, peanut butter, molasses, and lard were mainly responsible for the advance. Lower prices were reported for flour, cheese, cocoa beans, and oleomargarine. Cattle feed prices were 3.7 percent higher than a month ago.

Shoes rose more than 2 percent during the month, reflecting earlier increases in prices for leather. Higher prices were also reported for sheep skins and goat skins.

Higher prices for raw cotton permitted increased quotations for cotton goods under the sliding scale ceiling established by the Office of Price Administration. Men's work clothing, hosiery, underwear, and suiting averaged higher than for February. Prices were also higher for rope and cordage.

Weakening prices for fuel oil and gasoline in the Oklahoma and Texas fields more than offset advancing prices for crude petroleum and its products in the Pennsylvania fields with the result that the Bureau's index for petroleum products dropped 1 percent.

Higher ceiling prices for antimony, together with increased prices for tin cans, motor trucks, and heating equipment accounted for the slight advance of 0.2 percent in the metals and metal products group index.

Prices of building materials edged slightly upward on the strength of higher quotations for paint materials (such as tung and linseed oils), common brick and drain tile, most types of lumber, gravel, sand, lime, plaster, and roofing slate. Prices were lower for gum lumber, red cedar shingles, yellow pine timbers, and for rosin, shellac, and turpentine.

Prices for most fatty acids and industrial fats and oils continued to rise as did also fertilizer materials, including phosphate rock and tannage.

Higher prices were reported for housefurnishings, such as window shades and oil cloth.

Percentage comparison of the March 1942 level of wholesale prices with February 1942 and March 1941 and August 1939 with corresponding index numbers are given in table 1.

TABLE 1.—Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, March 1942 with Comparisons for February 1942, March 1941, and August 1939

[1926=100]

Group and subgroup	March 1942	February 1942	Per- cent of change from a month ago	March 1941	Per- cent of change from a year ago	August 1939	Per- cent of change from August 1939
All commodities.....	97.6	96.7	+0.9	81.5	+19.8	75.0	+30.1
Farm products.....	102.8	101.3	+1.5	71.6	+43.6	61.0	+68.5
Grains.....	93.8	95.3	-1.6	67.8	+38.3	51.5	+82.1
Livestock and poultry.....	113.8	109.3	+4.1	82.5	+37.9	66.0	+72.4
Other farm products.....	97.9	97.4	+0.5	65.6	+49.2	60.1	+82.9
Foods.....	96.1	94.6	+1.6	75.2	+27.8	67.2	+43.0
Dairy products.....	94.3	95.0	-0.7	80.3	+17.4	67.9	+38.9
Cereal products.....	90.6	91.1	-0.5	75.2	+20.5	71.9	+26.0
Fruits and vegetables.....	87.7	85.2	+2.9	60.7	+44.5	58.5	+49.9
Meats.....	109.2	104.0	+5.0	83.7	+30.5	73.7	+48.2
Other foods.....	89.1	89.4	-0.3	68.9	+29.3	60.3	+47.8
Hides and leather products.....	116.7	115.3	+1.2	102.6	+13.7	92.7	+25.9
Shoes.....	124.3	121.8	+2.1	107.4	+15.7	100.8	+23.3
Hides and skins.....	116.6	115.5	+1.0	99.1	+17.7	77.2	+51.0
Leather.....	101.5	101.4	+0.1	94.8	+7.1	84.0	+20.8
Other leather products.....	113.6	113.5	+0.1	100.5	+13.0	97.1	+17.0
Textile products.....	96.6	95.2	+1.5	78.4	+23.2	67.8	+42.5
Clothing.....	106.6	105.3	+1.2	87.7	+21.6	81.5	+30.8
Cotton goods.....	112.6	111.4	+1.1	81.1	+38.8	65.5	+71.9
Hosiery and underwear.....	69.8	69.6	+0.2	60.4	+18.6	61.5	+13.5
Rayon.....	30.3	30.3	0	29.5	+2.7	28.5	+6.3
Silk.....	(1)	(1)		47.7		44.3	
Woolen and worsted goods.....	108.7	104.3	+4.2	93.2	+16.6	75.5	+44.0
Other textile products.....	98.2	98.1	+0.1	80.1	+22.6	63.7	+54.2
Fuel and lighting materials.....	77.7	78.0	-0.3	72.0	+7.9	72.6	+7.0
Anthracite.....	85.2	85.3	-0.1	81.0	+5.2	72.1	+18.2
Bituminous coal.....	108.4	108.4	0	100.3	+8.1	96.0	+12.9
Coke.....	122.1	122.1	0	113.8	+7.3	104.2	+17.2
Electricity.....	(1)	(1)		70.0		75.8	
Gas.....	(1)	77.0		77.0		86.7	
Petroleum and products.....	58.3	58.9	-0.6	49.9	+16.8	51.7	+12.8
Metals and metal products.....	103.8	103.6	+0.2	97.7	+6.2	93.2	+11.4
Agricultural implements.....	96.9	96.9	0	92.7	+4.5	93.5	+3.6
Farm machinery.....	98.0	98.0	0	93.9	+4.4	94.7	+3.5
Iron and steel.....	97.1	97.0	+0.1	95.7	+1.5	95.1	+2.1
Motor vehicles.....	112.7	112.4	+0.3	99.8	+12.9	92.5	+21.8
Nonferrous metals.....	85.6	85.6	0	84.3	+1.5	74.6	+14.7
Plumbing and heating.....	98.2	97.9	+0.3	82.8	+18.6	79.3	+23.8
Building materials.....	110.5	110.1	+0.4	99.5	+11.1	89.6	+23.3
Brick and tile.....	97.1	97.0	+0.1	91.5	+6.1	90.5	+7.3
Cement.....	93.6	93.4	+0.2	90.8	+3.1	91.3	+2.5
Lumber.....	133.1	132.7	+0.4	116.7	+14.1	90.1	+47.7
Paint and paint materials.....	100.8	99.9	+0.9	87.4	+15.3	82.1	+22.8
Plumbing and heating.....	98.2	97.9	+0.3	82.8	+18.6	79.3	+23.8
Structural steel.....	107.3	107.3	0	107.3	0	107.3	0
Other building materials.....	103.8	103.5	+0.3	95.2	+9.0	89.5	+16.0
Chemicals and allied products.....	97.1	97.0	+0.1	79.8	+21.7	74.2	+30.9
Chemicals.....	96.4	96.3	+0.1	85.9	+12.2	83.8	+15.0
Drugs and pharmaceuticals.....	126.5	126.5	0	97.2	+30.1	77.1	+64.1
Fertilizer materials.....	79.5	79.3	+0.2	70.4	+12.9	65.5	+21.4
Mixed fertilizers.....	82.8	82.7	+0.1	73.7	+12.3	73.1	+13.3
Oils and fats.....	108.8	108.2	+0.6	55.7	+95.3	40.6	+168.0
Housefurnishing goods.....	102.6	102.5	+0.1	89.5	+14.6	85.6	+19.9
Furnishings.....	107.7	107.4	+0.3	95.8	+12.4	90.0	+20.0
Furniture.....	97.4	97.4	0	82.9	+17.5	81.1	+20.1
Miscellaneous.....	89.7	89.3	+0.4	77.6	+15.6	73.3	+22.4
Automobile tires and tubes.....	71.0	71.0	0	58.4	+21.6	60.5	+17.4
Cattle feed.....	137.7	132.8	+3.7	82.7	+66.5	68.4	+101.3
Paper and pulp.....	102.9	102.9	0	93.5	+10.1	80.0	+28.6
Rubber, crude.....	46.3	46.3	0	45.6	+1.5	34.9	+32.7
Other miscellaneous.....	93.3	92.9	+0.4	83.4	+11.9	81.3	+14.8
Raw materials.....	98.2	97.0	+1.2	75.3	+30.4	66.5	+47.7
Semimanufactured articles.....	92.3	92.0	+0.3	83.4	+10.7	74.5	+23.9
Manufactured products.....	97.8	97.0	+0.8	84.2	+16.2	79.1	+23.6
All commodities other than farm products.....	96.2	95.5	+0.7	83.6	+15.1	77.9	+23.5
All commodities other than farm products and foods.....	95.2	94.9	+0.3	84.9	+12.1	80.1	+18.9

¹ Data not available.



## Index Numbers by Commodity Groups, 1926 to March 1942

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1941, inclusive, and by months from March 1941 to March 1942, inclusive, are shown in table 2.

TABLE 2.—Index Numbers of Wholesale Prices by Groups of Commodities

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
<b>By years:</b>											
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929.....	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932.....	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933.....	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1936.....	80.9	82.1	95.4	71.5	76.2	87.0	86.7	78.7	81.7	70.5	80.8
1937.....	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938.....	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939.....	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940.....	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
1941.....	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.6	94.3	82.0	87.3
<b>By months:</b>											
<b>1941:</b>											
March.....	71.6	75.2	102.6	78.4	72.0	97.7	99.5	79.8	89.5	77.6	81.5
April.....	74.4	77.9	103.9	81.0	72.9	97.9	100.1	81.8	90.4	78.6	83.2
May.....	76.4	79.5	106.4	83.0	75.6	98.1	100.4	83.6	91.4	79.6	84.9
June.....	82.1	83.1	107.8	84.5	77.9	98.3	101.0	83.8	93.1	80.6	87.1
July.....	85.8	84.7	109.4	86.2	78.5	98.5	103.1	85.2	94.4	82.0	88.8
August.....	87.4	87.2	110.2	88.3	79.0	98.6	105.5	86.0	95.4	83.7	90.3
September.....	91.0	89.5	111.3	89.7	79.2	98.6	106.4	87.4	97.2	85.1	91.8
October.....	90.0	88.9	112.6	90.9	79.6	103.1	107.3	89.7	99.5	86.4	92.4
November.....	90.6	89.3	114.1	91.1	78.8	103.3	107.5	89.8	100.6	87.3	92.5
December.....	94.7	90.5	114.8	91.8	78.4	103.3	107.8	91.3	101.1	87.6	93.6
<b>1942:</b>											
January.....	100.8	93.7	114.9	93.6	78.2	103.5	109.3	96.0	102.4	89.3	96.0
February.....	101.3	94.6	115.3	95.2	78.0	103.6	110.1	97.0	102.5	89.3	96.7
March.....	102.8	96.1	116.7	96.6	77.7	103.8	110.5	97.1	102.6	89.7	97.6

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was given in Serial No. R. 1434—Wholesale Prices, December and Year 1941.

TABLE 3.—Index Numbers of Wholesale Prices by Special Groups of Commodities

[1926=100]

Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
By years:						By months:					
1926.....	100.0	100.0	100.0	100.0	100.0	1941:					
1929.....	97.6	93.9	94.5	93.3	91.6	March.....	75.3	83.4	84.2	83.6	84.9
1932.....	55.1	59.3	70.3	68.3	70.2	April.....	77.5	85.1	85.5	85.0	85.9
1933.....	56.5	65.4	70.5	69.0	71.2	May.....	79.7	86.4	87.1	86.6	87.4
1936.....	79.9	75.9	82.0	80.7	79.6	June.....	83.6	87.6	88.6	88.0	88.6
1937.....	84.8	85.3	87.2	86.2	85.3	July.....	86.1	87.9	90.1	89.3	89.7
1938.....	72.0	75.4	82.2	80.6	81.7	August.....	87.6	89.5	91.5	90.7	90.8
1939.....	70.2	77.0	80.4	79.5	81.3	September.....	90.0	90.3	92.8	91.9	91.6
1940.....	71.9	79.1	81.6	80.8	83.0	October.....	89.7	89.9	93.9	92.8	93.4
1941.....	83.5	86.9	89.1	88.3	89.0	November.....	90.2	89.7	93.8	92.7	93.5
						December.....	92.3	90.1	94.6	93.3	93.7
						1942:					
						January.....	96.1	91.7	96.4	94.8	94.6
						February.....	97.0	92.0	97.0	95.5	94.9
						March.....	98.2	92.3	97.8	96.2	95.2

## Weekly Fluctuations

Weekly fluctuations in the major commodity group classifications during February and March are shown by the index numbers in table 4.

TABLE 4.—Weekly Index Numbers of Wholesale Prices by Commodity Groups, February and March 1942

[1926=100]

Commodity group	Mar. 28	Mar. 21	Mar. 14	Mar. 7	Feb. 28	Feb. 21	Feb. 14	Feb. 7
All commodities.....	97.4	97.2	97.1	96.9	96.8	96.5	96.2	95.7
Farm products.....	103.4	103.1	102.3	101.5	102.0	101.9	100.7	100.1
Foods.....	95.9	95.5	95.8	95.8	95.5	94.8	94.0	93.7
Hides and leather products.....	117.6	116.6	116.4	116.4	116.3	116.1	116.1	115.8
Textile products.....	95.9	95.9	95.9	95.1	94.9	93.7	93.6	93.5
Fuel and lighting materials.....	78.1	78.2	78.2	78.5	78.4	78.5	78.7	78.4
Metals and metal products.....	103.7	103.7	103.7	103.7	103.7	103.6	103.6	103.6
Building materials.....	110.6	110.4	110.2	109.9	109.9	109.7	109.8	109.4
Chemicals and allied products.....	97.1	97.1	97.1	97.1	97.1	96.9	96.9	96.6
Housefurnishing goods.....	104.1	104.1	104.1	104.1	104.1	104.1	104.0	102.9
Miscellaneous.....	89.7	89.7	89.4	89.2	89.1	89.1	89.0	88.2
Raw materials.....	98.3	97.6	97.4	97.1	97.4	97.2	96.4	95.9
Semimanufactured articles.....	92.2	92.2	92.1	92.0	91.9	91.9	91.9	91.9
Manufactured products.....	97.9	97.9	97.9	97.7	97.4	97.1	96.9	96.3
All commodities other than farm products.....	96.1	95.9	95.9	95.9	95.6	95.3	95.2	94.7
All commodities other than farm products and foods.....	95.3	95.3	95.2	95.1	95.0	94.8	94.9	94.5

# Trend of Employment and Unemployment

## SUMMARY OF REPORTS OF EMPLOYMENT FOR MARCH 1942

TOTAL civil nonagricultural employment increased by 328,000 from mid-February to mid-March. The total number employed in the current month aggregated 40,337,000, a gain of 2,576,000 since March 1941. These figures do not include 1,531,000 emergency employees on the WPA, NYA, and CCC work programs, nor uniformed military and naval personnel.

The largest gain among the major industrial groups from February to March occurred in contract construction, where the increase of 102,000 workers was traceable largely to Federal activities. The employment gain of 99,000 in manufacturing industries was less than the usual February-March increase, due to conversion of plant facilities to war production and to restrictions on the use of critical materials. Smaller gains were reported in transportation and public utilities, trade, and finance, service, and miscellaneous. Employment in the Federal, State, and local government services increased, a substantial portion of the increase being in Government navy yards and arsenals. In the mining group employment showed a drop, largely because of reduced employment in crude-petroleum production and coal mining. The decline in coal mining was less than seasonal.

The increase over the year of 2,576,000 civil nonagricultural employees was largely in manufacturing industries which showed a net gain of 1,366,000 workers. The corresponding increase in Federal, State, and local government employment was 654,000, of which approximately one-fourth was in navy yards and arsenals. In the remaining groups covered, transportation and public utilities increased 218,000; trade, 129,000; contract construction, 116,000; finance, service, and miscellaneous, 98,000; but mining declined 5,000.

Emergency employment on projects of the WPA, NYA, and CCC declined 101,000 during the past month. The reductions were distributed as follows: WPA, 65,100; NYA, 23,600; and CCC, 12,300. Over the past year work-relief personnel on these projects declined 1,421,000 persons.

### *Industrial and Business Employment*

Increases in employment between mid-February and mid-March were reported by 105 of the 157 manufacturing and by 7 of the 16 non-manufacturing industries surveyed by the Bureau of Labor Statistics. Pay-roll increases were reported by 126 of the manufacturing and 11 of the nonmanufacturing industries.



Factory employment as a whole increased 0.7 percent between February and March as compared with an expected seasonal gain under normal peacetime conditions of 1.4 percent. One of the chief factors retarding the rise in factory employment was a further recession in the automobile industry, the March decrease representing the fourth consecutive monthly decline. Employment in automobile plants in March was 181,700 below that of a year ago, and 194,900 below the 1941 peak reached in June.

Weekly factory pay rolls increased over the month by 2.1 percent, or nearly \$7,000,000. Compared with March 1941, factory employment showed a gain of 12.2 percent, and weekly factory pay rolls an increase of 38.6 percent. The gain over the year interval in factory pay rolls was more than 3 times as large as the gain in employment as a result of increased working hours, overtime premiums, and wage-rate increases.

Substantial employment increases between February and March were again shown in such strategic war industries as shipbuilding; aircraft; foundries and machine shops; electrical machinery; machine tools; machine-tool accessories; blast furnaces, steel works, and rolling mills; engines, turbines, water wheels, and windmills; firearms; explosives; and ammunition. Among the nondurable-goods industries, slaughtering and meat packing and book and job printing showed decreases of slightly more than the usual seasonal amount. Canning employment showed a substantially larger than seasonal decrease due in part to the restrictions on the use of tin for containers. Restrictions on the use of raw materials also caused contraseasonal decreases in factories manufacturing furniture, hosiery, and carpets and rugs.

Employment in anthracite mines showed a smaller than average decline from mid-February to mid-March, but pay rolls increased moderately as production expanded. The decline in bituminous-coal mines was also less than the average March recession, while metal mining showed a small employment gain which continued the virtually unbroken succession of monthly gains reported in recent years. The employment increase in quarrying and nonmetallic mining was less than seasonal.

Although substantial gains were reported by retail apparel and general merchandising establishments, the over-all gain for retail trade as a whole was very small, less than the March average of the past 12 years. This was due in part to the effect of Government restrictions on the sale of certain products, notably automobiles.

Employment declines over the month were shown for crude-petroleum production (1.9 percent), and for brokerage (2.4 percent); but dyeing and cleaning showed a gain of 4.1 percent, and private building construction a gain of 1.5 percent. The changes in the remaining nonmanufacturing industries covered were not significant, with the exception of the street-railway and bus industry, in which the demand for additional transportation facilities resulted in a contraseasonal gain of about 1 percent.

A preliminary report of the Interstate Commerce Commission for class I steam railroads showed an increase of 1.9 percent between February and March, the total number employed in March being 1,190,416. Corresponding pay-roll figures for March were not available when this report was prepared. For February they were \$209,172,112, a decrease of \$16,135,527 from January. This decrease

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in pay rolls was due in part to the fact that the February pay roll covered only 28 days while the January pay roll covered 31 days.

**Hours and earnings.**—The average hours worked per week by manufacturing wage earners were 42.5 in March, an increase of 0.8 percent since February. Corresponding average hourly earnings were 80.9 cents, a gain of 0.7 percent over the preceding month. The average weekly earnings of factory wage earners (both full- and part-time combined) were \$36.15, an increase of 1.7 percent since February. Of the 16 nonmanufacturing industries regularly surveyed, 10 reported increases in average weekly earnings. Of the 14 nonmanufacturing industries for which man-hours are available, 11 showed increases in average hours worked per week and 10 reported gains in average hourly earnings.

TABLE 1.—*Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, March and February 1942, and March 1941*

[Preliminary figures]

Industry	Employment index			Pay-roll index			Average weekly earnings		
	March 1942	February 1942	March 1941	March 1942	February 1942	March 1941	March 1942	February 1942	March 1941
All manufacturing industries combined.....	(1923-25=100)			(1923-25=100)					
	135.0	133.8	119.9	182.9	178.3	131.2	\$36.15	\$35.71	\$29.11
Class I steam railroads <sup>1</sup> .....	(1935-39=100)			(1935-39=100)					
	116.6	114.5	103.1	(2)	(2)	(2)	(2)	(2)	(2)
Coal mining:	(1929=100)			(1929=100)					
Anthracite.....	48.5	48.8	50.2	51.0	49.6	42.4	34.43	33.23	27.79
Bituminous.....	93.6	94.5	91.1	116.6	118.2	93.8	32.92	33.10	27.64
Metalliferous mining.....	81.4	81.0	74.3	98.8	98.4	72.7	38.27	38.31	30.85
Quarrying and nonmetallic mining.....	47.5	46.7	44.2	54.3	52.0	40.3	29.09	28.40	22.85
Crude petroleum production.....	59.5	60.6	60.2	63.3	61.8	56.1	37.87	39.00	34.25
Public utilities:									
Telephone and telegraph.....	90.2	90.3	81.8	122.4	120.9	106.1	33.20	32.76	31.93
Electric light and power.....	89.6	90.5	90.3	114.2	113.7	106.1	38.78	38.23	35.82
Street railways and busses.....	71.3	70.7	68.2	85.1	83.7	72.5	38.89	38.58	34.59
Trade:									
Wholesale.....	94.0	94.3	91.8	93.9	93.7	82.0	34.91	34.72	31.17
Retail.....	94.2	94.0	92.5	93.9	93.9	86.2	23.10	23.29	21.50
Hotels (year-round) <sup>2</sup> .....	93.6	94.1	94.2	92.0	92.6	85.7	16.93	16.94	15.67
Laundries.....	107.9	107.6	102.5	104.2	102.5	90.9	20.05	19.78	18.37
Dyeing and cleaning.....	114.0	109.5	104.4	92.9	85.6	77.2	22.75	21.81	20.34
Brokerage <sup>3</sup> .....	-2.4	-1.8	-7.4	-2.4	-3.6	-3.8	40.32	40.33	37.85
Insurance <sup>4</sup> .....	-2	-1	+1.5	+1	-4	+7.9	39.02	38.91	37.24
Building construction <sup>4</sup> .....	+1.8	-2.9	-1.6	+5.4	-2.0	+16.8	38.29	37.17	32.61
Water transportation <sup>5</sup> .....	75.7	76.3	79.5	+2.4	+2.6	+14.3	(2)	(2)	(2)

<sup>1</sup> Preliminary; source—Interstate Commerce Commission.

<sup>2</sup> Not available.

<sup>3</sup> Cash payments only; the additional value of board, room, and tips cannot be computed.

<sup>4</sup> Indexes of employment and pay rolls not available. Percentage changes from February to March 1942, January to February 1942, and March 1941 to March 1942 substituted.

<sup>5</sup> Based on estimates prepared by the U. S. Maritime Commission covering steam and motor merchant vessels of 1,000 gross tons or over in deep-sea trades only. Pay-roll data include war bonuses and value of subsistence and lodging. Pay-roll indexes on 1929 base not available. Percentage changes from February to March 1942, January to February 1942, and March 1941 to March 1942 substituted.

Wage-rate increases averaging 7.9 percent and affecting approximately 205,000 factory wage earners were reported by about 800 cooperating manufacturing establishments out of a reporting sample of approximately 34,000 plants employing about 8,000,000 wage earners. The only sizable number of workers in nonmanufacturing industries affected by wage-rate changes were about 3,500 engaged in

metal mining. As the Bureau's survey does not cover all establishments in an industry and, furthermore, as some firms may have failed to report wage-rate changes, these figures should not be construed as representing the total number of wage changes occurring in manufacturing and nonmanufacturing industries.

Employment and pay-roll indexes and average weekly earnings for February and March 1942 and March 1941 are given where available in table 1 for all manufacturing industries combined, selected non-manufacturing industries, water transportation, and class I railroads.

### Public Employment

During March, civilian employment in the executive branch of the Federal Government reached a total of 1,926,000 persons, requiring \$309,765,000 in pay rolls. This constituted an increase over February of 121,000 employees and \$47,658,000 in pay rolls, and, over the corresponding month a year ago, of 724,000 employees and \$125,520,000 in pay rolls.

Federal employment and pay rolls have been rising at a slightly faster rate outside the District of Columbia than inside. During the past year, employment inside the District rose 43 percent, as compared with 63 percent outside. Corresponding percentage increases for pay rolls were 45 and 72, respectively. Eleven percent of the Federal employees were force-account workers whose period of employment will terminate at the completion of the construction project on which they are engaged.

Construction programs financed wholly or partially from Federal funds required the services of 1,211,000 workers and \$199,206,000 pay rolls in the month ending March 15, 1942. Only 218,000 of these workers were employed directly by the Federal Government; the rest were employees of contractors or subcontractors engaged in Government work. During March, the number of building-trades workers engaged on Federal construction projects increased 104,000 and pay rolls increased \$6,924,000. Increases over the corresponding month a year ago were 408,000, or 51 percent, for employment; and \$84,599,000, or 74 percent, for pay rolls. Roughly \$22,395,000 of this pay-roll increase was due to higher hourly earnings, which, including overtime premiums, increased during the year from an average of \$0.892 to \$1.005 an hour.

Employment on work-relief programs of the Federal Government declined 103,000 persons during March and 1,438,000 during the past year. Work-relief pay rolls over the past year declined \$48,321,000. Total personnel on work-relief programs in March was 1,549,000 and total pay rolls were \$75,374,000.

For the regular Federal services, data for the legislative, judicial, and force-account employees, are reported to the Bureau of Labor Statistics by the respective offices, while data for the executive-service employees are reported through the Civil Service Commission. The Bureau of Labor Statistics receives monthly reports on employment and pay rolls for the various construction projects financed wholly or partially by Federal funds directly from the contractors and subcontractors, and for the work-relief programs from the respective agencies.

A summary of employment and pay-roll data in the regular Federal services and on construction and work-relief projects financed wholly or partially from Federal funds is given in table 2.

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TABLE 2.—*Employment and Pay Rolls in Regular Federal Services and on Projects Financed Wholly or Partially from Federal Funds, March 1941 and February-March 1942*

[Subject to revision]

Class	Employment			Pay rolls		
	March 1942	February 1942	March 1941	March 1942	February 1942	March 1941
Federal services:						
Executive <sup>1</sup> .....	1,926,074	1,805,186	1,202,348	\$309,764,679	\$262,106,949	\$184,244,306
Judicial.....	2,606	2,601	2,509	671,814	668,539	640,485
Legislative.....	6,339	6,343	6,033	1,368,606	1,375,325	1,318,229
Construction projects:						
Financed from regular Federal appropriations <sup>2</sup> .....	1,138,891	1,041,674	755,407	187,766,427	181,983,472	108,990,245
Defense.....	1,035,895	942,908	649,138	173,138,779	167,421,209	97,227,528
Other.....	102,996	98,766	106,269	14,627,648	14,562,263	11,762,717
Financed by FPFA <sup>3</sup> .....	24,488	25,443	31,801	3,118,070	3,375,792	3,485,089
Financed by PWA.....	849	1,917	10,043	120,778	238,097	1,360,442
Defense Public Works.....	1,765	1,155	(4)	165,612	102,754	(4)
Financed by RFC <sup>4</sup> .....	45,298	36,998	6,011	8,034,756	6,582,478	772,227
Defense.....	44,047	35,603	3,968	7,840,747	6,349,468	550,132
Other.....	1,251	1,395	2,043	194,009	233,010	222,095
Work Projects Administration projects.....	963,496	1,028,577	1,765,247	62,400,000	58,729,760	98,557,641
Defense.....	317,750	327,778	477,753	20,400,000	18,895,871	(8)
Other.....	645,746	700,799	1,287,494	42,000,000	39,833,889	(8)
National Youth Administration:						
Student-work program.....	246,187	263,130	473,417	1,667,771	1,716,439	3,300,411
Out-of-school work program.....	223,264	229,950	465,283	5,470,927	5,552,854	9,005,825
Civilian Conservation Corps.....	116,243	130,321	282,896	5,835,313	6,390,338	12,830,524

<sup>1</sup> Includes force-account employees also included under construction projects, and supervisory and technical employees also included under CCC.

<sup>2</sup> Includes ship construction.

<sup>3</sup> Covers projects formerly under the United States Housing Authority; other projects of the Federal Public Housing Authority are shown under regular Federal appropriations.

<sup>4</sup> Program not in operation.

<sup>5</sup> Includes employees and pay roll of the RFC Mortgage Company.

<sup>6</sup> Break-down not available.



## DETAILED REPORTS OF EMPLOYMENT, FEBRUARY 1942

### *Estimates of Nonagricultural Employment*

IN TABLE 1 are given estimates of nonagricultural employment by major groups. The figures for "total civil nonagricultural employment" and "civil employees in nonagricultural establishments" are based on the number of nonagricultural "gainful workers," shown by the 1930 Census of Occupations (minus the number unemployed for 1 week or more at the time of the Census) and on regular reports of employers to the United States Bureau of Labor Statistics and to other Government agencies. The estimates for the individual industry groups are based in large part on industrial censuses and on the above-mentioned regular reports of employers.

Estimates of "employees in nonagricultural establishments" by States are given each month in a mimeographed release on employment and pay rolls.

TABLE 1.—Estimates of Total Nonagricultural Employment by Major Groups

[In thousands]

Employment group	February 1942 (preliminary)	January 1942	Change, January 1942 to February 1942	February 1941	Change, February 1941 to February 1942
Total civil nonagricultural employment <sup>1</sup> .....	39, 909	39, 865	+44	37, 448	+2, 461
Civil employees in nonagricultural establishments <sup>2</sup> ..	33, 766	33, 722	+44	31, 305	+2, 461
Manufacturing.....	12, 696	12, 592	+104	11, 273	+1, 423
Mining.....	859	876	-17	854	+5
Contract construction <sup>3</sup> .....	1, 632	1, 658	-26	1, 678	-46
Transportation and public utilities.....	3, 246	3, 255	-9	3, 028	+218
Trade.....	6, 692	6, 757	-65	6, 491	+201
Finance, service, and miscellaneous.....	4, 182	4, 180	+2	4, 075	+107
Federal, State, and local government.....	4, 459	4, 404	+55	3, 906	+553

<sup>1</sup> Excludes employees on WPA and NYA projects and employees in CCC camps. Includes proprietors, firm members, self-employed persons, casual workers, and domestic servants. Includes allowance for adjustment of factory and trade totals to preliminary 1939 Census figures.

<sup>2</sup> Excludes all of the groups omitted from "Total civil nonagricultural employment" as well as proprietors, firm members, self-employed persons, casual workers, and domestic servants.

<sup>3</sup> Includes employees of construction contractors only. Does not include "force account" construction workers, that is, those employed directly by other classes of employers.

### Industrial and Business Employment

Monthly reports on employment and pay rolls are available for 157 manufacturing industries; 16 nonmanufacturing industries, including private building construction; water transportation; and class I steam railroads. The reports for the first 2 of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics. The figures on water transportation are based on estimates prepared by the Maritime Commission, and those on class I steam railroads are compiled by the Interstate Commerce Commission.

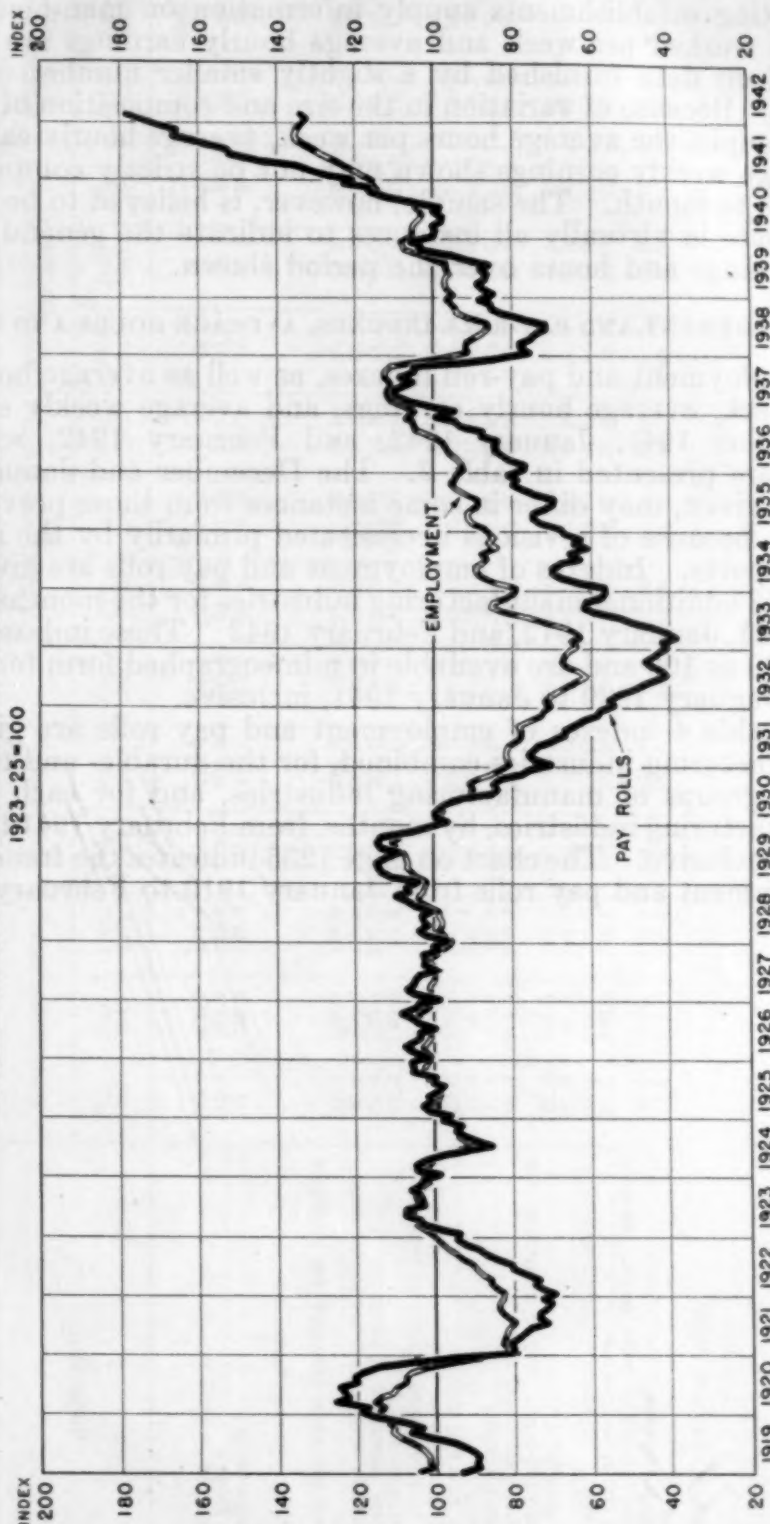
The employment, pay-roll, hours, and earnings figures for manufacturing, mining, laundries, and dyeing and cleaning cover wage earners only, but the figures for public utilities, brokerage, insurance, and hotels relate to all employees except corporation officers and executives, while for trade they relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum production they cover wage earners and clerical field force. The coverage of the reporting samples for the various nonmanufacturing industries ranges from approximately 25 percent for wholesale and retail trade, dyeing and cleaning, and insurance, to approximately 80 percent for quarrying and non-metallic mining, anthracite mining, and public utilities, and 90 percent for metal mining.

The general manufacturing indexes are computed from reports supplied by representative manufacturing establishments in 90 of the 157 industries surveyed. These reports cover more than 55 percent of the total wage earners in all manufacturing industries of the country and more than 65 percent of the wage earners in the 90 industries covered.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and the amount of pay rolls for the pay period ending nearest the 15th of the month.

# EMPLOYMENT AND PAY ROLLS ALL MANUFACTURING INDUSTRIES

1923-25=100



ADJUSTED TO 1919 CENSUS OF MANUFACTURES.

UNITED STATES DEPARTMENT OF LABOR  
BUREAU OF LABOR STATISTICS



The average weekly earnings shown in table 2 are computed by dividing the weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As not all reporting establishments supply information on man-hours, average hours worked per week and average hourly earnings are necessarily based on data furnished by a slightly smaller number of reporting firms. Because of variation in the size and composition of the reporting sample, the average hours per week, average hourly earnings, and average weekly earnings shown may not be strictly comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movement of earnings and hours over the period shown.

#### EMPLOYMENT AND PAY-ROLL INDEXES, AVERAGE HOURS AND EARNINGS

Employment and pay-roll indexes, as well as average hours worked per week, average hourly earnings, and average weekly earnings for December 1941, January 1942, and February 1942, where available, are presented in table 2. The December and January figures, where given, may differ in some instances from those previously published, because of revisions necessitated primarily by the inclusion of late reports. Indexes of employment and pay rolls are given in table 3 for 55 additional manufacturing industries for the months of December 1941, January 1942, and February 1942. These indexes are based on 1939 as 100 and are available in mimeographed form for the period from January 1939 to January 1941, inclusive.

In table 4 indexes of employment and pay rolls are given for all manufacturing industries combined, for the durable- and nondurable-goods groups of manufacturing industries, and for each of 13 non-manufacturing industries, by months, from February 1941 to February 1942, inclusive. The chart on page 1235 indicates the trend of factory employment and pay rolls from January 1919 to February 1942.

TABLE 2.—Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries  
MANUFACTURING

[Indexes are based on 3-year average, 1923-25=100. For "all manufacturing," "durable goods," and "nondurable goods," they have been adjusted to preliminary 1939 Census figures. The indexes for all other manufacturing groups and industries have been adjusted to 1937 Census figures except as otherwise noted and are not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request.]

Industry	Employment Index			Pay-roll Index			Average weekly earnings <sup>1</sup>			Average hours worked per week <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	Feb. 1942	Jan. 1942	Dec. 1941	Feb. 1942	Jan. 1942	Dec. 1941	Feb. 1942	Jan. 1942	Dec. 1941	Feb. 1942	Jan. 1942	Dec. 1941	Feb. 1942	Jan. 1942	Dec. 1941
All manufacturing <sup>1</sup> .....	133.6	132.3	134.2	178.2	173.4	169.9	\$35.78	\$35.15	\$33.70	42.2	41.5	41.2	80.3	80.1	78.7
Durable goods <sup>2</sup> .....	145.1	143.2	144.2	210.7	204.4	195.4	41.60	41.00	39.62	44.4	43.7	42.8	89.3	88.9	87.1
Nondurable goods <sup>3</sup> .....	122.7	121.8	124.8	141.8	138.7	141.3	37.31	36.96	26.91	39.7	39.1	39.4	70.0	70.1	69.5
<i>Durable goods</i>															
Iron and steel and their products, not including machinery.....	136.0	136.3	138.0	178.4	173.7	174.2	38.36	37.36	36.99	42.1	41.3	41.4	90.9	90.4	89.4
Blast furnaces, steel works, and rolling mills.....	149.3	148.7	148.6	190.5	184.5	185.0	40.20	39.13	39.26	40.7	39.7	40.0	98.8	98.6	98.3
Bolts, nuts, washers, and rivets.....	169.0	170.4	169.6	270.0	261.1	258.5	38.19	36.66	36.81	44.8	43.0	44.1	85.2	85.4	83.4
Cast-iron pipe.....	97.4	97.4	98.1	124.5	117.4	120.2	30.64	28.90	29.46	41.6	39.4	41.1	73.1	72.7	71.1
Cutlery (not including silver and plated cutlery) and edge tools.....	134.0	132.9	134.0	179.4	170.9	165.1	34.93	33.48	32.29	46.0	44.6	44.6	76.8	75.6	73.2
Forgings, iron and steel.....	123.0	120.6	117.7	215.9	208.6	198.3	47.55	46.95	45.21	48.0	47.8	47.1	99.4	98.4	96.1
Hardware.....	94.3	98.6	105.7	132.0	133.4	137.7	34.08	33.02	31.90	45.7	43.9	43.0	74.7	75.2	74.2
Plumbers' supplies.....	92.4	95.1	97.3	104.2	99.3	109.5	32.50	30.08	32.62	40.1	37.7	41.0	81.2	79.7	79.5
Stamped and enameled ware.....	209.2	213.4	220.2	296.6	294.2	297.6	33.58	32.28	31.64	43.5	42.3	42.1	77.5	76.6	75.2
Steam and hot-water heating apparatus and steam fittings.....	123.5	122.4	124.0	168.8	168.5	160.6	40.90	41.32	38.79	46.0	46.4	45.3	88.8	88.5	85.8
Stoves.....	93.8	91.7	104.3	103.2	94.0	112.3	31.11	29.00	30.42	40.3	38.3	40.2	77.4	75.9	75.7
Structural and ornamental metalwork.....	107.2	105.7	106.0	133.5	125.0	121.2	39.96	38.07	36.89	44.9	43.6	43.1	89.2	87.5	86.7
Tin cans and other tinware.....	131.3	136.6	134.4	164.6	180.9	173.6	28.06	29.62	28.89	39.9	42.1	41.3	70.9	71.4	70.3
Tools (not including edge tools, machine tools, files, and saws).....	153.0	151.4	149.7	224.1	218.3	210.5	37.50	36.91	35.97	47.8	46.5	47.1	78.5	79.3	76.5
Wirework.....	174.6	184.2	198.6	248.9	265.0	264.4	34.60	34.91	32.29	43.1	43.5	40.5	80.3	80.4	79.7

See footnotes at end of table.

TABLE 2.—Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries—Continued

MANUFACTURING—Continued															
Industry	Employment index			Pay-roll index			Average weekly earnings <sup>1</sup>			Average hours worked per week <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	Feb. 1942	Jan. 1942	Dec. 1941	Feb. 1942	Jan. 1942	Dec. 1941	Feb. 1942	Jan. 1942	Dec. 1941	Feb. 1942	Jan. 1942	Dec. 1941	Feb. 1942	Jan. 1942	Dec. 1941
Durable goods—Continued															
Machinery, not including transportation equipment	189.7	185.0	183.4	294.3	284.2	269.6	\$43.05	\$42.55	\$40.87	47.3	47.1	46.3	80.6	89.9	87.9
Agricultural implements (including tractors)	166.3	164.1	167.2	240.9	228.8	219.0	39.77	38.25	35.96	42.5	41.2	39.0	94.7	93.5	92.4
Cash registers, adding machines, and calculating machines	177.7	175.0	176.3	259.6	249.9	239.4	45.49	44.45	42.32	47.1	46.4	45.1	97.6	97.0	94.7
Electrical machinery, apparatus, and supplies	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	41.10	40.68	38.90	45.6	45.4	44.4	90.3	89.8	87.8
Engines, turbines, water wheels, and windmills	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	52.89	55.04	50.64	48.4	50.0	48.2	110.1	111.0	105.6
Foundry and machine-shop products	154.8	152.1	150.4	219.3	211.2	202.8	41.98	41.09	39.86	47.6	46.9	46.3	87.9	87.4	85.8
Machine tools	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	50.87	50.81	48.82	54.9	55.0	53.8	92.6	92.6	90.8
Radios and phonographs	206.5	209.4	218.5	276.0	276.6	286.3	32.84	32.17	32.01	43.9	43.5	44.1	74.8	73.9	72.6
Textile machinery and parts	110.7	110.2	109.4	154.0	154.0	150.1	38.44	38.45	37.80	48.9	48.8	48.5	78.5	78.7	78.1
Typewriters and parts	150.7	156.7	161.8	222.2	225.7	235.0	36.16	35.36	35.02	46.5	46.1	46.7	77.7	76.6	76.2
Transportation equipment															
Aircraft	215.6	210.2	208.9	337.0	329.3	320.6	48.34	49.29	43.74	46.2	46.0	42.2	105.9	106.9	103.5
Automobiles	88.8	100.2	116.2	135.0	153.6	147.9	44.80	46.50	42.34	47.7	48.8	46.3	94.8	95.7	91.6
Cars, electric, and steam-railroad	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	43.92	40.86	46.67	42.4	42.3	37.1	115.8	116.3	110.7
Locomotives	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	40.81	39.28	38.84	43.7	42.0	42.3	93.7	93.6	91.8
Shipbuilding	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	49.11	49.56	46.21	48.8	49.1	46.9	100.4	100.8	98.6
Nonferrous metals and their products															
Aluminum manufactures	145.7	144.3	145.3	201.6	198.0	192.3	38.49	38.16	36.80	43.8	43.8	43.4	87.2	86.5	84.8
Brass, bronze, and copper products	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	39.39	40.50	40.65	44.2	45.4	45.7	89.1	89.2	89.0
Clocks and watches and time-recording devices	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	43.57	43.55	40.81	45.7	46.2	44.5	95.6	94.9	91.8
Jewelry	109.7	110.5	113.3	154.4	149.0	150.2	31.28	30.00	29.45	43.0	41.2	41.7	72.8	72.8	70.7
Lighting equipment	109.4	109.0	116.0	106.1	102.0	120.8	26.02	25.11	27.94	40.2	39.6	43.1	65.5	63.7	65.3
Silverware and plated ware	97.1	100.0	110.1	107.7	112.7	114.8	34.29	35.02	32.38	42.4	42.5	40.3	80.8	82.4	80.3
Smelting and refining—copper, lead, and zinc	77.6	79.4	86.2	90.4	88.9	100.8	34.04	31.87	34.06	43.5	41.5	44.3	78.5	76.9	76.9
Lumber and allied products	101.6	101.9	101.3	127.3	125.6	123.9	35.19	34.78	34.48	40.3	39.6	39.8	88.2	87.8	86.6
Furniture	74.2	74.0	76.6	86.0	81.8	85.8	24.98	25.86	24.30	40.5	38.9	39.7	61.3	60.7	60.2
Lumber	102.3	101.8	106.8	115.6	110.9	120.9	26.54	25.72	26.81	41.0	40.1	41.8	65.5	64.7	64.2
Millwork	71.0	71.4	74.4	67.4	66.0	71.8	26.36	25.59	26.66	42.0	40.8	42.7	62.5	62.6	62.3
Sawmills	63.8	63.6	65.3	67.1	67.5	68.0	23.31	21.89	21.48	39.8	37.8	37.6	58.6	57.9	57.2
Stone, clay, and glass products	93.7	95.2	99.7	103.7	99.4	106.6	30.23	28.98	29.91	39.8	37.9	38.9	75.9	75.1	75.3
Brick, tile, and terra cotta	67.5	68.8	74.2	66.8	65.2	89.0	25.72	24.91	25.72	38.7	38.5	38.9	60.9	60.9	60.9
Cement	76.3	77.5	80.7	86.1	84.1	89.0	31.55	30.80	31.27	40.2	39.9	39.9	78.5	78.5	78.4
Glass	126.0	127.7	132.0	171.2	166.1	171.1	33.25	31.96	31.80	40.2	38.7	38.1	83.4	82.8	83.7
				135.6	138.9	131.1	28.51	24.98	27.10	38.7	36.7	38.4	74.0	73.6	73.5
	</														



Non-durable goods														
Glass														
Brick, tile, and terra cotta	93.7	98.2	99.7	103.7	106.8	107.1	110.1	116.1	121.1	126.1	131.1	136.1	141.1	146.1
Cement	70.3	77.3	80.7	86.8	89.0	94.1	100.1	106.1	111.1	116.1	121.1	126.1	131.1	136.1
Marble, granite, slate, and other products														
Pottery	120.1	120.8	122.3	125.9	127.2	130.1	135.6	140.1	145.1	150.1	155.1	160.1	165.1	170.1
Textiles and their products														
Fabrics														
Carpet and rugs	104.6	104.8	106.2	108.8	110.8	113.0	115.2	117.4	119.6	121.8	124.0	126.2	128.4	130.6
Carpets and rugs	80.2	82.0	84.8	88.8	90.2	95.2	100.2	105.2	110.2	115.2	120.2	125.2	130.2	135.2
Cotton goods	112.9	112.3	111.9	115.1	116.1	119.4	120.4	123.7	124.7	128.0	129.0	132.3	133.3	136.6
Cotton small wares	100.1	105.9	108.5	112.7	114.7	119.4	120.4	123.7	124.7	128.0	129.0	132.3	133.3	136.6
Dyeing and finishing textiles	136.8	133.5	134.8	148.8	141.9	141.4	141.9	141.4	141.9	141.4	141.9	141.4	141.9	141.4
Hats, fur-felt	126.8	122.6	125.7	136.0	137.0	140.3	141.9	141.4	141.9	141.4	141.9	141.4	141.9	141.4
Hosiery	126.8	122.6	125.7	136.0	137.0	140.3	141.9	141.4	141.9	141.4	141.9	141.4	141.9	141.4
Knitted underwear	78.9	86.3	85.4	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6
Knitted underwear	86.3	85.4	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6
Knitted cloth	150.1	144.4	145.6	156.9	158.9	161.9	161.9	161.9	161.9	161.9	161.9	161.9	161.9	161.9
Silk and rayon goods	61.6	60.2	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0
Woolen and worsted goods	103.5	103.0	110.7	125.7	125.7	125.7	125.7	125.7	125.7	125.7	125.7	125.7	125.7	125.7
Wearing apparel														
Clothing, men's	121.0	117.1	119.5	125.7	125.7	125.7	125.7	125.7	125.7	125.7	125.7	125.7	125.7	125.7
Clothing, women's	168.4	156.3	162.9	169.1	169.1	169.1	169.1	169.1	169.1	169.1	169.1	169.1	169.1	169.1
Corsets and allied garments	116.7	110.0	113.4	156.6	136.1	138.4	138.4	138.4	138.4	138.4	138.4	138.4	138.4	138.4
Men's furnishings	113.6	106.7	119.9	139.6	118.7	139.6	139.6	139.6	139.6	139.6	139.6	139.6	139.6	139.6
Millinery	83.8	70.8	60.1	75.6	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0
Shirts and collars	133.2	130.6	135.1	148.8	141.3	153.3	141.3	153.3	141.3	153.3	141.3	153.3	141.3	153.3
Leather and its manufactures														
Boots and shoes	100.9	98.9	96.2	113.4	107.3	106.7	107.3	106.7	107.3	106.7	107.3	106.7	107.3	106.7
Leather	96.6	95.4	95.2	107.8	101.0	99.5	101.0	99.5	101.0	99.5	101.0	99.5	101.0	99.5
Food and kindred products														
Baking	133.4	135.3	141.0	150.6	154.6	157.2	157.2	157.2	157.2	157.2	157.2	157.2	157.2	157.2
Beverages	283.8	281.8	289.3	356.4	348.4	358.4	358.4	358.4	358.4	358.4	358.4	358.4	358.4	358.4
Butter	97.5	98.2	101.1	97.8	93.9	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
Canning and preserving	111.3	111.3	124.3	128.3	121.6	130.1	123.3	123.3	123.3	123.3	123.3	123.3	123.3	123.3
Confectionery	90.4	91.9	106.6	103.5	105.1	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7
Flour	79.9	79.3	79.0	91.3	89.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7
Ice cream	69.0	69.7	71.1	66.7	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2
Slaughtering and meat packing	137.8	143.8	138.1	162.6	182.3	168.9	168.9	168.9	168.9	168.9	168.9	168.9	168.9	168.9
Sugar, beet	42.7	72.1	228.0	58.5	75.8	254.8	254.8	254.8	254.8	254.8	254.8	254.8	254.8	254.8
Sugar refining, cane	89.4	92.5	98.6	78.7	90.6	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
Tobacco manufactures														
Chewing and smoking tobacco and snuff	65.5	63.4	67.5	72.3	72.6	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8
Cigars and cigarettes	54.7	55.4	56.5	70.4	73.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1
Paper and printing														
Boxes, paper	133.3	134.7	138.3	135.1	136.5	144.1	144.1	144.1	144.1	144.1	144.1	144.1	144.1	144.1
Paper and pulp	135.2	137.0	144.7	176.8	176.8	192.7	192.7	192.7	192.7	192.7	192.7	192.7	192.7	192.7
Printing and publishing	129.5	129.5	129.1	174.0	171.9	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8
Book and job	104.8	107.9	108.9	99.9	105.3	109.7	109.7	109.7	109.7	109.7	109.7	109.7	109.7	109.7
Newspapers and periodicals	114.6	115.3	122.3	113.5	113.1	128.5	128.5	128.5	128.5	128.5	128.5	128.5	128.5	128.5

See footnotes at end of table.

TABLE 2.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries—Continued*

MANUFACTURING—Continued

Industry	Employment index			Pay-roll index			Average weekly earnings <sup>1</sup>			Average hours worked per week <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	Feb. 1942	Jan. 1942	Dec. 1941	Feb. 1942	Jan. 1942	Dec. 1941	Feb. 1942	Jan. 1942	Dec. 1941	Feb. 1942	Jan. 1942	Dec. 1941	Feb. 1942	Jan. 1942	Dec. 1941
<i>Nondurable goods—Continued</i>															
Chemicals, petroleum, and coal products.....	153.0	149.4	143.5	208.8	202.0	200.9	\$36.38	\$36.05	\$36.14	40.6	40.3	40.5	\$8.1	\$8.6	\$8.1
Petroleum refining.....	129.6	129.1	129.2	178.3	171.1	173.9	42.64	41.09	41.74	38.8	37.3	38.0	110.6	110.7	110.6
Other than petroleum refining.....	188.7	184.3	183.2	218.3	211.5	209.3	34.29	34.45	34.33	41.1	40.9	41.2	81.9	82.2	81.5
Chemicals.....	188.1	185.9	185.8	278.3	275.7	271.6	38.97	39.06	38.64	41.0	41.2	41.1	95.0	94.9	94.1
Cottonseed—oil, cake, and meal.....	104.8	103.9	116.7	109.5	107.0	125.5	16.87	16.58	17.30	44.9	43.8	46.6	37.3	37.3	36.8
Druggists' preparations.....	154.5	151.6	149.4	192.9	187.4	185.3	28.23	27.74	27.70	39.9	40.5	40.7	66.6	66.6	64.9
Explosives.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	44.26	44.06	44.85	44.8	44.9	47.0	98.2	98.2	95.4
Fertilizers.....	159.1	154.0	155.8	155.4	150.2	156.2	18.47	18.47	18.44	38.5	36.8	36.3	47.9	50.2	50.8
Paints and varnishes.....	141.1	140.9	142.2	176.4	172.5	175.9	34.78	33.88	34.13	41.8	41.2	41.6	83.0	82.4	82.2
Rayon and allied products.....	312.6	315.9	321.1	391.3	392.4	391.2	31.95	31.71	31.13	39.3	39.6	39.1	81.2	80.0	79.7
Soap.....	91.6	91.6	92.3	135.1	132.5	133.5	34.80	34.12	34.09	40.6	40.0	40.1	85.7	85.3	81.9
Rubber products.....	99.0	99.6	110.3	137.4	127.4	136.9	34.80	34.55	33.50	39.7	39.3	38.8	88.2	88.7	87.5
Rubber boots and shoes.....	75.2	74.1	80.8	95.8	97.1	100.7	28.91	29.75	30.82	40.1	40.7	41.9	72.1	73.1	73.6
Rubber tires and inner tubes.....	73.6	75.2	84.9	101.8	103.1	108.6	40.32	39.88	37.19	37.5	36.8	35.3	107.6	108.6	105.8
Rubber goods other <sup>3</sup> .....	173.6	173.5	189.4	222.1	217.7	236.2	31.07	30.46	30.26	41.7	41.3	41.4	74.9	74.2	73.3

NONMANUFACTURING

[Indexes are based on 12-month average, 1929=100, except for class I railroads, which are based on 1935-39 as 100]

Coal mining:	48.8	49.0	49.1	49.7	39.4	35.9	\$33.36	\$28.31	\$24.20	33.9	27.0	24.1	99.0	97.0	99.8
Anthracite <sup>10 11</sup> .....	94.4	95.1	95.5	118.2	117.1	119.9	33.29	32.75	33.38	31.6	31.4	31.6	106.7	105.4	106.8
Bituminous <sup>10</sup> .....	80.7	80.7	80.3	98.5	94.3	93.7	38.67	37.07	36.76	44.7	43.3	43.0	85.7	85.7	85.4
Metallic mining <sup>11</sup> .....	48.3	48.8	50.9	61.7	48.9	55.8	28.16	26.34	27.74	41.8	39.3	41.9	67.7	67.7	64.7
Quarrying and nonmetallic mining.....	60.5	61.3	61.1	63.9	64.8	64.6	38.53	38.88	38.92	37.7	38.7	38.3	100.0	98.3	98.8
Crude-petroleum production <sup>12</sup> .....	89.7	90.4	90.0	120.8	120.9	122.9	32.88	32.66	33.39	39.7	40.2	40.7	83.4	81.8	82.6
Public utilities:	90.6	92.0	93.1	113.0	114.6	115.2	37.59	37.90	37.73	40.1	39.9	40.3	94.1	94.0	94.0
Telephone and telegraph <sup>14 15</sup> .....	70.5	70.4	70.6	83.5	80.5	80.0	38.64	37.32	36.94	48.0	46.4	46.8	79.4	79.2	77.9
Electric light and power <sup>14 15</sup> .....	94.3	94.0	96.3	93.2	91.8	92.8	34.62	33.88	33.60	41.3	40.9	41.3	83.6	82.8	82.0
Street railways and busses <sup>16 17 18</sup> .....	94.3	95.4	113.0	93.6	94.6	107.8	23.67	23.14	21.59	42.3	42.2	42.3	59.6	59.4	58.1
Trade:	113.2	111.6	114.2	113.5	110.9	114.1	25.45	25.25	25.60	41.5	41.4	41.0	59.4	58.8	58.0
Wholesale <sup>14 17</sup> .....	94.3	94.0	96.3	93.2	91.8	92.8	34.62	33.88	33.60	41.3	40.9	41.3	83.6	82.8	82.0
Retail <sup>14 17</sup> .....	94.3	95.4	113.0	93.6	94.6	107.8	23.67	23.14	21.59	42.3	42.2	42.3	59.6	59.4	58.1
Food <sup>19</sup> .....	105.4	105.1	105.5	105.0	105.7	105.1	20.46	19.91	18.51	38.4	38.0	38.2	59.6	59.6	59.6
General merchandising <sup>14 19</sup> .....	105.4	105.1	105.5	105.0	105.7	105.1	20.46	19.91	18.51	38.4	38.0	38.2	59.6	59.6	59.6
Apparel <sup>19</sup> .....	72.7	73.3	81.6	85.9	87.0	88.8	31.37	30.32	30.24	41.9	43.9	44.8	74.4	71.6	71.8
Furniture <sup>19</sup> .....	47.5	47.5	55.6	68.8	76.4	87.1	30.53	30.36	30.24	43.4	43.0	42.9	64.2	65.2	64.7
	47.5	47.5	55.6	68.8	76.4	87.1	30.53	30.36	30.24	43.4	43.0	42.9	64.2	65.2	64.7





TABLE 3.—Indexes of Employment and Pay Rolls in Fifty-five Additional Manufacturing Industries

[12-month average 1939=100]

Industry	Employment			Pay rolls		
	February 1942	January 1942	December 1941	February 1942	January 1942	December 1941
<b>Iron and steel group:</b>						
Metal doors and shutters	138.3	140.4	142.5	198.8	200.0	209.2
Firearms	(1)	(1)	(1)	(1)	(1)	(1)
Screw-machine products	239.7	230.5	213.4	370.5	350.1	317.8
Wire drawing	139.1	139.6	139.0	180.9	185.8	184.5
Wrought pipe not made in rolling mills	159.3	155.8	152.0	229.1	217.4	198.9
Steel barrels, kegs, and drums	142.2	141.7	140.3	215.9	195.6	196.2
<b>Machinery group:</b>						
Machine-tool accessories	(1)	(1)	(1)	(1)	(1)	(1)
Pumps	231.4	222.0	213.4	413.9	386.1	351.7
Refrigerators and refrigerating apparatus	112.6	109.2	107.5	149.0	138.1	131.2
Sewing machines	137.8	138.0	137.9	239.3	218.4	224.5
Washing machines, wringers, and driers	116.4	109.0	117.8	165.2	146.0	154.5
<b>Transportation-equipment group:</b>						
Motorcycles, bicycles, and parts	144.6	139.3	163.8	199.6	184.6	216.3
<b>Nonferrous-metals group:</b>						
Sheet-metal work	147.3	145.3	145.9	208.1	194.1	194.5
Smelting and refining of scrap metal	158.1	155.0	150.5	202.0	190.1	190.2
<b>Lumber group:</b>						
Caskets and morticians' goods	102.9	103.7	105.4	127.1	122.0	125.9
Wood preserving	114.6	115.5	118.8	158.3	151.4	166.4
Wood turned and shaped	115.8	108.2	111.8	151.6	139.7	144.1
Wooden boxes, other than cigar	126.8	126.0	127.4	173.8	160.7	170.2
Mattresses and bedsprings	115.6	115.6	117.9	141.6	141.8	139.4
<b>Stone, clay, and glass products group:</b>						
Abrasive wheels	195.5	195.9	194.8	264.7	268.1	260.1
Asbestos products	134.8	137.1	138.1	183.7	183.2	192.2
Lime	116.3	114.4	118.2	157.9	146.7	153.8
Gypsum	110.5	117.0	121.4	131.2	134.6	159.7
Glass products made from purchased glass	134.2	130.1	143.7	159.3	149.3	176.7
Wallboard and plaster, except gypsum	129.2	128.0	132.8	155.8	153.5	159.5
<b>Textiles:</b>						
Textile bags	136.2	129.0	116.4	164.3	161.6	136.6
Cordage and twine	140.3	140.1	143.0	194.1	193.0	197.0
Curtains, draperies, and bedspreads	94.7	86.5	95.2	127.0	107.6	134.2
Housefurnishings, other	109.1	113.6	126.9	130.8	143.5	154.7
Jute goods, except felt	128.0	126.3	124.7	184.4	184.5	182.3
Handkerchiefs	94.7	93.9	102.0	126.4	104.9	131.7
<b>Leather group:</b>						
Boot and shoe cut stock and findings	106.6	101.4	103.9	139.5	138.4	129.0
Leather gloves and mittens	136.7	129.1	142.0	172.9	143.2	166.9
Trunks and suitcases	171.8	167.8	185.2	189.8	159.6	203.0
<b>Food group:</b>						
Cereal preparations	118.1	113.3	106.6	147.0	147.0	128.0
Condensed and evaporated milk	132.2	127.8	122.8	157.4	150.6	142.9
Feeds, prepared	119.7	115.1	111.1	148.0	145.3	135.8
<b>Paper and printing group:</b>						
Paper bags	131.9	130.3	129.1	172.1	169.3	167.2
Envelopes	120.0	120.8	124.1	136.3	135.7	142.1
Paper goods, not elsewhere classified	122.5	125.3	129.9	145.3	149.3	153.3
Bookbinding	109.5	110.4	112.0	141.9	143.7	147.5
Lithographing	99.0	102.6	106.1	106.1	109.1	116.1
<b>Chemical, petroleum, and coal products:</b>						
Ammunition	(1)	(1)	(1)	(1)	(1)	(1)
Compressed and liquefied gases	151.1	147.9	143.5	200.4	194.4	169.0
Perfumes and cosmetics	99.6	99.9	110.4	114.4	112.3	122.1
Coke-oven products	121.4	123.7	123.6	158.5	155.3	149.1
Paving materials	81.4	79.7	99.9	106.0	100.6	127.2
Roofing materials	119.6	114.2	124.0	148.3	135.8	153.6
<b>Miscellaneous group:</b>						
Chemical fire extinguishers	(1)	(1)	(1)	(1)	(1)	(1)
Buttons	121.1	118.9	123.4	162.6	159.0	162.7
Instruments—professional, scientific, and commercial	(1)	(1)	(1)	(1)	(1)	(1)
Optical goods	(1)	(1)	(1)	(1)	(1)	(1)
Photographic apparatus	130.5	128.3	125.4	177.0	175.4	166.7
Pianos, organs, and parts	114.3	116.6	127.8	133.7	133.8	158.0
Toys, games, and playground equipment	115.1	97.7	123.4	143.2	112.7	147.6

1 Not available for publication.

TABLE 4.—Indexes of Employment and Pay Rolls in Selected Manufacturing<sup>1</sup> and Non-manufacturing<sup>2</sup> Industries, February 1941 to February 1942

Industry	1941												1942	
	Av.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
<b>Employment</b>														
<b>Manufacturing</b>														
All industries.....	127.7	117.8	119.9	122.6	124.9	127.9	130.6	133.1	135.2	135.4	134.8	134.2	132.3	133.6
Durable goods <sup>3</sup> .....	134.0	121.0	123.7	127.7	131.3	135.1	137.6	138.7	142.1	144.0	144.6	144.2	143.2	145.1
Nondurable goods <sup>4</sup> .....	121.6	114.7	116.3	117.8	118.8	121.1	123.9	127.7	128.7	127.3	125.4	124.8	121.8	122.7
<b>Nonmanufacturing</b>														
Anthracite mining <sup>5</sup> .....	49.7	50.6	50.2	48.7	48.6	49.2	49.3	50.0	50.0	50.3	50.2	49.1	49.0	48.8
Bituminous-coal mining <sup>5</sup> .....	86.2	90.6	91.1	23.5	87.9	88.1	90.3	92.6	94.2	95.3	95.1	95.5	95.1	94.4
Metalliferous mining <sup>5</sup> .....	77.6	73.4	74.3	77.2	77.1	78.9	79.0	79.9	79.4	79.7	79.5	80.2	80.7	80.7
Quarrying and nonmetallic mining.....	49.8	42.4	44.2	48.2	51.0	51.9	52.7	53.9	54.2	54.1	52.6	50.9	46.8	46.3
Crude-petroleum production.....	61.0	60.4	60.2	60.1	60.3	61.5	62.1	62.2	61.8	61.6	60.9	61.1	61.3	60.5
Telephone and telegraph <sup>7</sup> .....	86.3	80.9	81.8	83.2	84.6	86.3	88.3	89.6	90.3	90.6	90.1	90.0	90.4	89.7
Electric light and power <sup>7</sup> .....	92.7	90.1	90.3	91.3	92.2	93.5	94.6	95.2	94.9	94.1	93.4	93.1	92.0	90.6
Street railways and busses <sup>7</sup> .....	69.3	68.0	68.2	68.3	68.9	69.1	69.5	69.7	70.3	70.3	70.2	70.6	70.4	70.5
Wholesale trade.....	94.0	91.4	91.8	92.4	92.2	93.8	94.2	95.8	95.6	96.3	96.3	96.3	94.9	94.3
Retail trade <sup>7</sup> .....	98.0	90.7	92.5	97.8	96.1	97.8	96.7	96.9	100.0	101.0	103.0	113.0	95.4	94.3
Year-round hotels <sup>8</sup> .....	95.0	93.9	94.2	95.2	96.3	95.0	94.5	94.5	95.7	96.2	96.1	95.3	94.2	94.2
Laundries <sup>8</sup> .....	108.5	101.1	102.5	104.9	108.3	112.0	115.8	114.6	113.0	111.2	108.9	108.4	108.8	107.4
Dyeing and cleaning <sup>8</sup> .....	115.1	101.4	104.4	117.2	120.6	122.7	121.7	118.9	121.5	121.2	117.2	113.3	109.8	109.6
<b>Pay rolls</b>														
<b>Manufacturing</b>														
All industries.....	148.8	126.8	131.2	134.7	144.1	152.2	152.7	158.1	162.6	167.0	165.4	169.9	173.4	178.2
Durable goods <sup>3</sup> .....	167.8	139.3	144.6	149.9	163.1	173.9	172.2	177.6	183.3	191.4	190.3	195.4	204.4	210.7
Nondurable goods <sup>4</sup> .....	127.6	112.9	116.3	117.7	122.9	127.9	130.7	136.3	139.5	139.6	137.4	141.3	138.7	141.8
<b>Nonmanufacturing</b>														
Anthracite mining <sup>5</sup> .....	41.4	45.2	42.4	24.3	33.4	51.2	34.8	51.1	49.6	49.2	41.8	35.9	39.4	49.7
Bituminous-coal mining <sup>5</sup> .....	99.6	90.8	93.8	15.5	103.4	107.2	105.4	117.3	115.5	122.6	116.3	119.9	117.1	118.2
Metalliferous mining <sup>5</sup> .....	81.9	71.8	72.7	78.9	81.5	85.3	79.3	85.4	85.9	88.3	80.8	93.7	94.3	98.5
Quarrying and nonmetallic mining.....	51.8	38.2	40.3	47.0	53.2	55.7	55.5	59.3	60.5	61.5	57.5	55.8	48.9	51.7
Crude-petroleum production.....	60.5	57.3	56.1	57.8	58.6	59.9	61.4	61.5	64.4	64.4	64.2	64.6	64.8	63.9
Telephone and telegraph <sup>7</sup> .....	112.7	104.3	106.4	107.3	110.5	113.0	115.7	116.4	117.3	117.0	118.3	122.9	120.9	120.8
Electric light and power <sup>7</sup> .....	111.2	105.4	106.1	107.6	109.6	111.4	113.5	115.1	115.0	115.7	115.2	115.2	114.6	113.0
Street railways and busses <sup>7</sup> .....	75.4	71.0	72.5	72.0	72.7	76.2	75.8	78.6	78.1	78.4	78.5	80.0	80.5	83.5
Wholesale trade.....	87.1	81.4	82.0	83.4	84.6	88.4	88.0	89.8	90.9	92.0	91.6	91.8	91.8	93.2
Retail trade <sup>7</sup> .....	93.4	84.6	86.2	91.7	91.5	95.2	94.0	94.0	95.8	97.3	98.5	107.8	94.6	93.5
Year-round hotels <sup>8</sup> .....	88.5	86.1	85.7	87.1	87.9	87.4	87.6	88.2	90.0	91.9	93.2	95.3	91.5	92.1
Laundries <sup>8</sup> .....	99.3	89.7	90.9	95.8	98.7	102.5	106.7	104.7	105.2	103.4	101.9	102.6	103.8	102.2
Dyeing and cleaning <sup>8</sup> .....	90.4	74.4	77.2	97.8	96.1	98.4	96.4	92.1	90.5	98.5	93.0	88.6	86.5	85.8

<sup>1</sup> 3-year average 1923-25=100—adjusted to preliminary 1939 Census of Manufactures. See tables 9, 10, and 11 of December 1940 "Employment and Pay Rolls" for comparable figures back to January 1919 for "all manufacturing" and January 1923 for "durable goods" and "nondurable goods."

<sup>2</sup> 12-month average for 1929=100. Comparable indexes for wholesale trade, quarrying, metal mining, and crude-petroleum production are in November 1934 and subsequent issues of "Employment and Pay Rolls" or in February 1935 and subsequent issues of Monthly Labor Review. For other nonmanufacturing indexes see notes 5, 6, and 7.

<sup>3</sup> Includes: Iron and steel, machinery, transportation equipment, nonferrous metals, lumber and allied products, and stone, clay, and glass products.

<sup>4</sup> Includes: Textiles and their products, leather and its manufactures, food and kindred products, tobacco manufactures, paper and printing, chemicals and allied products, products of petroleum and coal, rubber products, and a number of miscellaneous industries not included in other groups.

<sup>5</sup> Indexes have been adjusted to the 1935 Census. Comparable series from January 1929 forward are presented in January 1938 and subsequent issues of the pamphlet. See also table 7 of October 1940 pamphlet for revised figures for anthracite mining, February to September 1940.

<sup>6</sup> See table 7 of February 1941 pamphlet for revised indexes January 1938 to January 1941.

<sup>7</sup> Retail-trade indexes adjusted to 1935 Census and public utility indexes to 1937 Census. Not comparable with indexes published in "Employment and Pay Rolls" pamphlets prior to January 1940 or in "Monthly Labor Review" prior to April 1940. Comparable series January 1929 to December 1939 available in mimeographed form.

<sup>8</sup> Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies.

## UNEMPLOYMENT IN APRIL 1942

UNEMPLOYMENT declined 600,000 between March and April 1942 to a new low of 3,000,000, according to returns from the WPA sample Monthly Report of Unemployment. No change was recorded in the number of employed persons, but the size of the labor force was reported to be 600,000 lower.

TABLE 1.—Estimated Civilian Labor Force, Employment, and Unemployment, by Months, April 1940–April 1942

Month	Estimated number (millions of persons)								
	1942			1941			1940		
	Labor force	Em- ployed	Unem- ployed <sup>1</sup>	Labor force	Em- ployed	Unem- ployed <sup>1</sup>	Labor force	Em- ployed	Unem- ployed <sup>1</sup>
January.....	52.4	48.2	4.2	52.8	45.2	7.6	(?)	(?)	(?)
February.....	52.6	48.6	4.0	52.7	45.5	7.2	(?)	(?)	(?)
March.....	54.0	50.4	3.6	52.4	45.6	6.8	(?)	(?)	(?)
April.....	53.4	50.4	3.0	53.3	46.7	6.6	53.9	45.1	8.8
May.....				54.0	48.3	5.7	54.7	46.3	8.4
June.....				55.7	49.8	5.9	56.3	47.7	8.6
July.....				56.0	50.4	5.6	57.0	47.7	9.3
August.....				55.8	50.5	5.3	56.7	47.8	8.9
September.....				54.3	49.8	4.5	55.2	48.1	7.1
October.....				53.5	49.6	3.9	54.8	47.4	7.4
November.....				53.3	49.4	3.9	53.9	46.3	7.6
December.....				53.3	49.5	3.8	53.2	46.1	7.1

<sup>1</sup> Includes persons on public emergency work projects.

<sup>2</sup> Not available.

The increase of 1,800,000 in employment between February and March 1942 was the largest recorded since the initiation of the WPA sample Monthly Report of Unemployment. It reflects the increase in industrial activity occasioned by the war effort and the possible earlier seasonal upturn in agricultural activity resulting from appeals for larger crops this year.

The civilian labor force continued to increase and reached a total of 54,000,000 persons in March or 1,600,000 more than in March 1941. This is an encouraging development in view of the need for a greatly expanding labor supply to achieve the production goals set for 1942.



TABLE 2.—Estimated Civilian Labor Force, Employment, and Unemployment, by Age Groups, January–March 1941 and January–March 1942<sup>1</sup>

Age and labor market status	1942			1941			Increase or decrease, March 1941-March 1942
	March	February	January	March	February	January	
Estimated number (millions of persons)							
All age groups:							
Labor force.....	54.0	52.6	52.4	52.4	52.7	52.8	+1.6
Employed.....	50.4	48.6	48.2	45.6	45.5	45.2	+4.8
Unemployed.....	3.6	4.0	4.2	6.8	7.2	7.6	-3.2
Age 14-24 years:							
Labor force.....	11.2	10.7	10.7	11.0	11.1	11.3	+ .2
Employed.....	10.2	9.6	9.5	8.7	8.7	8.7	+1.5
Unemployed.....	1.0	1.1	1.2	2.3	2.4	2.6	-1.3
Age 25-54 years:							
Labor force.....	34.2	33.6	33.5	33.2	33.3	33.3	+1.0
Employed.....	32.4	31.5	31.3	29.8	29.7	29.5	+2.6
Unemployed.....	1.8	2.1	2.2	3.4	3.6	3.8	-1.6
Age 55 years and over:							
Labor force.....	8.6	8.3	8.2	8.2	8.3	8.2	+ .4
Employed.....	7.8	7.5	7.4	7.1	7.1	7.0	+ .7
Unemployed.....	.8	.8	.8	1.1	1.2	1.2	-.3
Unemployment rate <sup>2</sup> (percent)							
All age groups.....	6.7	7.5	8.1	13.0	13.6	14.4	-6.3
14-24 years.....	9.1	10.4	11.7	20.8	21.9	23.6	-11.7
25-54 years.....	5.4	6.1	6.5	10.2	10.7	11.4	-4.8
55 years and over.....	9.0	9.4	9.6	13.8	14.2	14.2	-4.8
Percentage distribution of unemployed							
All age groups.....	100.0	100.0	100.0	100.0	100.0	100.0	0
14-24 years.....	28.1	28.1	29.6	33.4	34.1	34.9	-5.3
25-54 years.....	50.6	52.1	51.9	49.9	49.6	49.8	+ .7
55 years and over.....	21.3	19.8	18.5	16.7	16.3	15.3	+4.6

<sup>1</sup> All data exclude persons in institutions. Persons on public emergency work projects are included with the unemployed.<sup>2</sup> Unemployed as a percent of labor force in each age group.

## Labor Offices

### NATIONAL LABOR AND WELFARE OFFICES IN LATIN AMERICA

BELOW are given the names and addresses, as well as the directing officials, of the various national labor and welfare offices in Latin America. These data were compiled by the Bureau of Labor Statistics from official publications of the respective countries or from information furnished by the agencies themselves or by their country's diplomatic representatives in the United States. The Bureau will appreciate being informed of any omissions, errors, or changes of officials.

#### *Argentina*

Ministerio del Interior: Dr. Miguel J. Culaciati, Ministro.

Address of Ministerio: Casa de Gobierno, Buenos Aires, República Argentina.

Departamento Nacional del Trabajo: Dr. Emilio Pellet Lastra, Presidente.

Address of Departamento: Victoria 618, Buenos Aires, República Argentina.

#### *Bolivia*

Ministerio del Trabajo, Salubridad y Previsión Social: Dr. Abelardo Ibáñez Benavente, Ministro.

Address of Ministerio: La Paz, Bolivia.

#### *Brazil*

Ministério do Trabalho, Indústria e Comércio: Hon. Alexandre Marcondes Filho, Ministro.

Departamento Nacional do Trabalho: Dr. Luiz Augusto de Rego Monteiro, Diretor.

Address of Ministério and Departamento: Palácio do Trabalho, Avenida Aparicio Borges, Rio de Janeiro, Brazil.

#### *Chile*

Ministerio de Salubridad Pública: Dr. Eduardo Escudero, Ministro.

Ministerio del Trabajo: Hon. Leonidas Leyton, Ministro.

Dirección General del Trabajo: Hon. Mariano Bustos L., Director General.

Address of Ministerios and Dirección: Santiago, Chile.

#### *Colombia*

Ministerio de Trabajo, Higiene y Previsión Social: Dr. José Joaquín Caicedo Castilla, Ministro.

Departamento Nacional del Trabajo: Dr. Francisco Posada Zárate, Jefe.

Address of Ministerio and Departamento: Bogotá, Colombia.

*Costa Rica*

Secretaría de Estado en el Despacho de Salubridad Pública y Protección Social: Dr. Mario Luján Fernández, Secretario.  
Secretaría de Estado en los Despachos de Gobernación, Policía, Trabajo, Previsión Social y Seguridad Pública: Hon. Francisco Calderón Guardia, Secretario.  
Address of Secretarías: San José, Costa Rica.

*Cuba*

Ministerio de Salubridad y Asistencia Social: Dr. Domingo F. Ramos, Ministro.  
Ministerio del Trabajo: Dr. Oscar Gans y Martínez, Ministro.  
Address of Ministerios: Habana, Cuba.

*Dominican Republic*

Secretaría de Estado de Agricultura, Industria y Trabajo: Hon. Marino E. Cáceres, Secretario.  
Secretaría de Estado de Sanidad y Beneficencia: Dr. Wenceslao Medrano, hijo, Secretario.  
Address of Secretarías: Ciudad Trujillo, República Dominicana.

*Ecuador*

Ministerio de Previsión Social y Trabajo: Hon. Leopoldo N. Chávez, Ministro.  
Dirección de Trabajo: Hon. Carlos Dousdebés, Director.  
Address of Ministerio and Dirección: Quito, Ecuador.

*El Salvador*

Ministerio de Estado en los Ramos de Gobernación, Trabajo, Fomento, Agricultura y Asistencia Social: Col. Rodolfo Víctor Morales, Ministro.  
Address of Ministerio: San Salvador, El Salvador.

*Guatemala*

Secretaría de Gobernación y Justicia: Dr. Guillermo Sáenz de Tejada, Secretario.  
Departamento Nacional del Trabajo: Hon. Manuel García y García, Director.  
Address of Secretaría and Departamento: Guatemala, Guatemala.

*Haiti*

Secrétairerie d'Etat de l'Instruction Publique, de l'Agriculture et du Travail: M. Maurice Dartigue, Secrétaire.  
Address of Secrétairerie: Port-au-Prince, Haïti.

*Honduras*

Secretaría de Estado en los Despachos de Fomento, Agricultura y Trabajo: Dr. Salvador Aguirre, Secretario.  
Secretaría de Estado en los Despachos de Gobernación, Justicia, Sanidad y Beneficencia: Gen. Abraham Williams, Secretario.  
Address of Secretarías: Tegucigalpa, Honduras.

*Mexico*

Secretaría de la Asistencia Pública: Dr. Gustavo Baz, Secretario.  
Secretaría del Trabajo y Previsión Social: Hon. Ignacio García Téllez, Secretario.  
Departamento de Salubridad Pública: Dr. Víctor Fernández Manero, Jefe.  
Address of Secretarías and Departamento: México, D. F., México.



### Nicaragua

Ministerio de Estado en el Despacho de Agricultura y Trabajo: Gen. José María Zelaya C., Ministro.  
Ministerio de Estado en el Despacho de Gobernación y Beneficencia: Dr. Leonardo Argüello, Ministro.  
Dirección General de Sanidad: Dr. Luis Manuel DeBayle, Director General.  
Address of Ministerios and Dirección: Managua, Nicaragua.

### Panama

Ministerio de Agricultura y Comercio: Hon. Ernesto B. Fábrega, Ministro.  
Ministerio de Salubridad y Obras Públicas: Col. Manuel Pino R., Ministro.  
Address of Ministerios: Panama, Panama.

### Paraguay

Ministerio de Salud Pública: Dr. Gerardo Buonghermini, Ministro.  
Ministerio del Interior: Col. Luis Santiviago, Ministro.  
Departamento Nacional de Trabajo: (Vacancy), Director.  
Address of Ministerios and Departamento: Asunción, Paraguay.

### Peru

Ministerio de Salud Pública, Trabajo y Previsión Social: Dr. Constantino J. Carvallo, Ministro.  
Dirección de Trabajo, Asistencia y Previsión Social: Dr. Jorge Fernández Stoll, Director.  
Address of Ministerio and Dirección: Lima, Peru.  
Caja Nacional de Seguro Social: Dr. Edgardo Rebagliati, Gerente General.  
Address of Caja: Av. N. de Piérola Nos. 300-312-324, Casilla No. 1311, Lima, Peru.

### Uruguay

Ministerio de Industrias y Trabajo: Dr. Julio César Canessa, Ministro.  
Ministerio de Instrucción Pública y Previsión Social: Hon. Cyro Giambruno, Ministro.  
Address of Ministerios: Montevideo, Uruguay.

### Venezuela

Ministerio de Sanidad y Asistencia Social: Dr. Félix Laiet, hijo, Ministro.  
Ministerio del Trabajo y de Comunicaciones: Dr. Ovidio Pérez Agreda, Ministro;  
Dr. Julio Díez, Director del Trabajo.  
Address of Ministerios: Caracas, Venezuela.

# Recent Publications of Labor Interest

MAY 1942

## Cost of Living and Prices

*Changes in assets and liabilities of families, five regions.* By Dorothy S. Brady and others. Washington, U. S. Bureau of Home Economics, 1941. 226 pp., charts. (Consumer purchases study, Urban, village, and farm series; Department of Agriculture miscellaneous publication No. 464.)

*Money disbursements of wage earners and clerical workers in thirteen small cities, 1933-35.* By Faith M. Williams and Gertrude Schmidt Weiss. Washington, U. S. Bureau of Labor Statistics, 1942. 173 pp., charts. (Bull. No. 691.)

*Family expenditures for housing and household operation, five regions.* By Hazel Kyrk and others. Washington, U. S. Bureau of Home Economics, 1941. 201 pp., charts. (Consumer purchases study, Farm series; Department of Agriculture miscellaneous publication No. 457.)

*Family expenditures for personal care, gifts, selected taxes, and miscellaneous items, five regions.* By Day Monroe and others. Washington, U. S. Bureau of Home Economics, 1941. 113 pp., charts. (Consumer purchases study, Urban, village, and farm series; Department of Agriculture miscellaneous publication No. 455.)

*Budgets for low-income families.* Baltimore, Baltimore Council of Social Agencies, 1940. 43 pp., bibliography.

A guide for use by independent families and by social workers in planning expenditures of families having low incomes.

*Prices and price indexes, 1913-1940.* Ottawa, Dominion Bureau of Statistics, 1942. 89 pp., charts.

Contains statistics of wholesale and retail prices and cost of living in Canada and other countries.

*Federal price control.* Compiled by Julia E. Johnsen. New York, H. W. Wilson Co., 1942. 266 pp., bibliography. (Reference Shelf, Vol. 15, No. 4.)

Discussion papers outlining the background, and presenting pro and con views, of the problem of price control, with special reference to price-control legislation for the United States.

*Canadian wartime price control.* By Jules Backman. (In *Dun's Review*, New York, December 1941, pp. 11-19, 46-48; chart, illus.)

Includes a calendar (prepared by Henry Brodie) of Canadian price-control measures.

*Factors influencing the general movement of prices in Great Britain.* By E. R. Hawkins. (In *Survey of Current Business*, U. S. Department of Commerce, Washington, December 1941, pp. 11-18; charts.)

Describes Great Britain's experience with price control, citing the relationship of the general wage advance to rises in import prices since the outbreak of war, declines in civilian supplies, and increasing consumer demand, and shows how the price indexes have been leveled off by indirect controls and subsidy.

EDITOR'S NOTE.—The Bureau of Labor Statistics does not distribute the publications to which reference is made in this list, except those issued by the Bureau itself. For all others, please write to the respective publishing agencies mentioned.

## Employment and Unemployment

*Employment and wages of covered workers in State unemployment compensation systems, 1939.* Washington, U. S. Social Security Board, Bureau of Employment Security, 1941. 404 pp., charts. (Employment security memorandum No. 17.)

A preliminary summary of similar data for 1940 has been issued by the Bureau of Employment Security.

*Old-age and survivors insurance statistics: Employment and wages of covered workers, 1939.* Washington, U. S. Social Security Board, Bureau of Old-Age and Survivors Insurance, 1941. 365 pp.

*Public employment and the war—a functional analysis with special attention to State and local government, July and October 1940.* Washington, U. S. Bureau of the Census, 1942. 90 pp., charts; processed.

This report is described as a companion to the study of public employment in the United States in January 1941 (summarized in the November 1941 Monthly Labor Review, p. 1168). The detailed analysis is limited to nonschool employees of State and local governments. Pay-roll as well as employment figures are presented.

*On the [WPA] sample survey of unemployment.* By Lester R. Frankel and J. Stevens Stock, Work Projects Administration. (In Journal of American Statistical Association, Menasha, Wis., March 1942, pp. 77-80.)

Description of the sampling methods used as the basis of the monthly estimates of unemployment published by the Work Projects Administration.

*Three aspects of labor dynamics.* By W. S. Woytinsky. Washington, Social Science Research Council, Committee on Social Security, 1942. 249 pp., charts.

The term "labor dynamics" is defined as including all kinds of variations in the Nation's labor force, but the present report deals with only three kinds of shifts of the working population: "turn-over of the working force in establishments, turn-over of the unemployed, and forced entries into the labor market during depressions." The report is an outgrowth of a number of earlier studies made by the author for the Committee on Social Security of the Social Science Research Council. The study was planned and initiated when unemployment overshadowed all other labor-market problems. Current problems are mainly in the field of labor shortages, but the subject of this volume has a continuing interest and is particularly important in connection with advance studies of post-war problems.

## Handicapped Workers

*The employment of physically handicapped under civil service.* By George Lavos. (In Outlook for the Blind and the Teachers Forum, New York, February 1942, pp. 4-15.)

Summary of information obtained by questionnaire from Federal, State, county, and municipal civil-service commissions, on job analysis, physical requirements, testing and placement procedures, and actual employment of handicapped persons.

*Vocational rehabilitation for disabled persons in California.* By Harry D. Hicker. Sacramento, State Department of Education, 1941. 42 pp., illus.

The methods followed by the Bureau of Vocational Rehabilitation are outlined and an account given of the results achieved.

*What of the blind? A survey of the development and scope of present-day work with the blind—Volume II.* Edited by Helga Lende. New York, American Foundation for the Blind, Inc., 1941. 206 pp.

The subjects covered in the collection of articles in this volume include special educational problems of the blind, economic and vocational adjustment, personal adjustment of the adult blind, and benefits provided for the blind by the Federal Government. A short list of references is given at the end of each chapter.

*Workmen's compensation laws in the United States in relation to employment of physically handicapped persons.* By Harry H. Howett. Elyria, Ohio, National Society for Crippled Children of the U. S. A., October 1, 1941. 8 pp.; mimeographed.



## Health and Industrial Hygiene

*Health and safety for America's workers—25 case studies.* (In *Factory Management and Maintenance*, New York, January 1942, pp. 73-96; illus.)  
Health and safety programs in 25 plants are described.

*Report on welfare and health in relation to hours of work and output in war-time.* London, British Association for Labor Legislation, [1940?]. 34 pp.

The report discusses hours of work and output, conditions of employment of children and young persons, and the promotion of health and welfare in Great Britain.

*Wartime health and democracy.* By Hugh Clegg. London, J. M. Dent & Sons, Ltd., 1941. 64 pp.

Account of the British medical services as they have been developed to meet the war emergency.

*The essentials of occupational diseases.* By Jewett V. Reed, M. D., and A. K. Harcourt, M. D. Springfield, Ill., Charles G. Thomas, 1941. 225 pp., bibliography.

The volume covers occupational poisoning from a large number of poisonous substances; harmful physical agents, such as abnormal temperatures, radioactive substances, noise, poor lighting, etc.; skin irritants; occupational diseases of the lungs; malignant disease associated with occupation; occupational diseases due to infections; and functional disturbances associated with occupation.

*Tuberculosis in industry.* Report of symposium held at Saranac Laboratory for the Study of Tuberculosis, Saranac Lake, N. Y., June 9-14, 1941, sponsored by Trudeau School of Tuberculosis. Edited by Leroy U. Gardner, M. D. New York, National Tuberculosis Association, 1942. 374 pp., bibliographies, charts, illus.

*The working environment and the health of workers in bituminous coal mines, non-ferrous metal mines, and nonferrous metal smelters in Utah.* Washington, U. S. National Institute of Health, and Utah State Board of Health (Salt Lake City), 1940. 310 pp., bibliography, charts, illus.

## Housing

*Defense housing in the United States—a selected reading list.* Compiled by Mary B. Devitt. Washington, Federal Housing Administration, 1941. 20 pp.; mimeographed.

*Housing policy in wartime and reconstruction.* By Carl Major Wright. (In *International Labor Review*, Montreal, March 1942, pp. 245-268.)

Discusses wartime housing policy in the United States and Great Britain particularly, and recommends a large volume of construction and Government economic controls in the postwar reconstruction period to avoid cyclical unemployment and industrial disorganization.

*Industrial housing in wartime.* Results of competition organized by Royal Institute of British Architects. London, Royal Institute of British Architects, [1940]. 29 pp., plans.

*Report of State Commissioner of Housing to Governor and Legislature of State of New York.* Albany, 1942. 64 pp., chart, illus. (Legislative document, 1942, No. 29.)

Deals with the need for new housing, existing low-vacancy ratios, low-cost housing provided by the various housing authorities in the State, and housing legislation.

*Report of Legislative Committee to Investigate Housing Situation in City of Philadelphia (Rosenfeld Committee).* Harrisburg, General Assembly, House of Representatives, 1941. 34 pp.

Reviews the situation and makes recommendations for legislative and other action.

### Industrial Accidents and Workmen's Compensation

*Causes of compensated accidents [New York State], four years, 1936-39.* Albany, State Department of Labor, 1941. 152 pp. (Special bull. No. 210.)

Covers more than 300,000 industrial-accident claims serious enough to cause more than 1 week of lost time, permanent injury, or death, which were closed in the 4 years from 1936 to 1939. Awards to injured workers or their dependents were equivalent to about 9,500,000 weeks of working time and \$109,144,157 in compensation payments.

*Accident experience of the gas industry for 1940.* New York, American Gas Association, 1941. 19 pp. (Statistical bull. No. 43.)

The report contains data for the year 1940 and a summary of the accident experience of the manufactured-gas and natural-gas industries in the United States for the 12-year period 1929 to 1940.

*Protective lighting for industrial plants.* By J. A. Summers and Dean M. Warren. Cleveland, Ohio, General Electric Co., Nela Park Engineering Department, [1941?]. 11 pp., diagrams, illus.

The bulletin deals with methods of lighting industrial plants in order to prevent sabotage.

*Workmen's compensation benefits in the United States, 1939 and 1940.* By Michalina M. Libman. (In Social Security Bulletin, U. S. Social Security Board, Washington, January 1942, pp. 6-14.)

### Industrial Relations

*Inquiry of [U. S.] Attorney General's Committee on Administrative Procedure relating to National Railroad Adjustment Board; Historical background and growth of machinery set up for the handling of railroad labor disputes, 1888-1940.* Compiled by Harry E. Jones. New York, Eastern Printing Corp., 1941. 427 and 215 pp.

An outgrowth of the inquiry of the U. S. Attorney General's Committee on Administrative Procedure. The first part gives documents of the history and procedures of the National Railroad Adjustment Board, a bipartisan agency set up by the Railway Labor Act, and a documentary account of the committee's study of this agency. The second part covers a much broader field, presenting in documentary form the historical background and growth of machinery for handling railway labor disputes for the period from 1888, the date of the first act dealing with railway labor, to 1940.

*Solving the employer's labor problems under New Deal legislation.* By Harvey B. Rector. Cincinnati, Law Research Service, 1942. 257 pp.

*Union agreements: I, Analysis of prevailing provisions; II, Texts of representative agreements.* New York, National Industrial Conference Board, Inc., 1942. 52 pp. (Management research memorandum No. 12.)

*Violations of free speech and rights of labor: Employers' associations and collective bargaining in California—Part I, General introduction.* Washington, 1942. 62 pp. (Senate report No. 1150, Part I, 77th Cong., 2d sess.)

The subcommittee of the Senate Committee on Education and Labor, appointed in 1936 to investigate violations of free speech and rights of labor, carried on extensive investigations of industrial espionage, strike-breaking services, industrial munitions, and private police systems. Reports of the investigations were summarized in the Monthly Labor Review for March 1938 (p. 693) and May 1939 (p. 1062). The committee's concluding investigations in California and some adjoining areas included agriculture as well as industry. Part I of the report for California, noted here, is an introduction to the full report of the committee on these later investigations; Parts II to IX, summarized in advance in Part I, will analyze the evidence, exhibits, and testimony; and Part X will consist of conclusions and recommendations.

### Labor Organization and Activities

*Chapters in the history of organized labor in Texas.* By Ruth Allen. Austin, Tex., 1941. 258 pp. (University of Texas publication No. 4143.)

Presents in detail some of the notable events in the growth of union activities in the Nation's largest State. Included are discussions on problems of alien and contract labor, Negroes, and the rise of the Texas State Federation of Labor.

*Through fifty years with the Brotherhood Railway Carmen of America.* By Leonard Painter. Kansas City, Mo., Brotherhood Railway Carmen of America, 1941. 228 pp., illus.

Fifty-year chronicle of progress of one of the oldest railroad labor organizations, concluding with railroad labor's successful defense of its wage standards in the 1938 findings of the President's Emergency Board.

*Unvarnished: The autobiography of a union leader.* By Philip Zausner. New York, Brotherhood Publishers, 1941. 381 pp.

An unusually frank discussion of union problems and union politics covering several decades in the history of the New York City painters' union.

*Federal regulation of labor unions.* By J. V. Garland. New York, H. W. Wilson Co., 1941. 286 pp., bibliography. (Reference Shelf, Vol. 15, No. 3.)

Compendium of articles, for use in intercollegiate debates, in which both sides of the question of Federal regulation of trade-unions are discussed.

*El movimiento sindical de América Latina.* By F. Pérez Leirós. Buenos Aires, Imprenta "La Vanguardia," 1941. 107 pp.

General account of the background for organization of workers' associations in various Latin American Republics, and of movements in the respective countries for formation of an international organization, which culminated in the organization of the Confederation of the Workers of Latin America (*Confederación de Trabajadores de América Latina*). The statutes of that organization, and other documents relating to collaboration of the Argentine General Labor Confederation with the international body, are appended.

### Migration

*Defense migration and labor supply.* By Howard B. Myers, Work Projects Administration. (In *Journal of American Statistical Association*, Menasha, Wis., March 1942, pp. 69-76.)

Summarizes results of surveys of migration to defense areas undertaken on a sample basis by the WPA Division of Research.

*Volume and characteristics of migration to Arizona, 1930-39.* By Varden Fuller and E. D. Tetreau. Tucson, University of Arizona, Agricultural Experiment Station, 1941. 34 pp., charts. (Bull. No. 176.)

The study covers the role of migration in the population growth of Arizona during the decade 1930-39, characteristics of the migrating population, extent of resettlement of migrants within the State, and employment and occupational readjustment.

*After three years: A restudy of the social and economic adjustment of a group of drought migrants.* By Paul H. Landis. Pullman, Wash., State College of Washington, Agricultural Experiment Station, 1941. 36 pp. (Bull. No. 407; Studies in rural population, No. 7.)

Comparison of the social and economic conditions in 1941 among a group of drought migrants to the State of Washington with their condition three years earlier.

### Productivity of Labor

*Productivity and unit labor cost in selected manufacturing industries, 1919-40.* Washington, U. S. Bureau of Labor Statistics, 1942. 111 pp.; multilithed.

This report presents revisions and extensions to 1940 of the indexes for most of the industries covered in the Work Projects Administration's National Research Project report on "Production, employment, and productivity in 59 manufacturing industries, 1919-36" (Philadelphia, 1939, 3 vols.).

A preliminary report extending these indexes to 1941 has also been issued by the Bureau of Labor Statistics.

### Wages and Hours of Labor

*Hours and earnings in the United States, 1932-40 (with supplement for 1941).* By Alice Olenin and Thomas F. Corcoran. Washington, U. S. Bureau of Labor Statistics, 1942. 207 pp., charts. (Bull. No. 697.)



*Man-hour statistics for 171 selected industries.* By Arthur F. Beal. Washington, U. S. Bureau of Labor Statistics and U. S. Bureau of the Census, 1942. 189 pp.; multilithed.

This report, the fourth in a series compiled by the Bureau of Labor Statistics in cooperation with the Bureau of the Census, based on data collected in the Biennial Census of Manufactures, refers to 171 of the industries canvassed in 1939. It presents monthly averages of hours worked by wage earners (by industry, region, and size of plant) and various man-hour ratios (by industry, region, size of plant, and size of community) such as wages per man-hour, value of products per man-hour, value added per man-hour, and kilowatt-hours used per man-hour.

*Wages in manufacturing industry in the United States.* New York, National Association of Manufacturers, Statistical Department, November 1941. 55 pp., charts.

There is emphasis on the gains made by workers during the present century in reductions of hours, increases of rates of pay, and advances in real earnings. It is stated that increased output per worker has made these gains possible, but arguments are presented against further advances as likely to contribute to inflation.

*Wartime changes in earnings and cost of living.* By Robert A. Sayre. (In Management Record, National Industrial Conference Board, Inc., New York, March 1942, pp. 72-79; charts.)

The article compares earnings, working hours, and cost of living in the World War and in the present war, and emphasizes the comparatively large advances in weekly earnings in the present war.

*Wages and investment.* By Alan Sweezy. (In Journal of Political Economy, Chicago, February 1942, pp. 117-129.)

This analysis of wage trends and wage theories concludes that there is no basis for the traditional view that in a period of unemployment wage reductions will eliminate or even reduce unemployment through transfer of income to profits and increased investment. It is held that long-range policy calls for a lessening of dependence on savings and an expansion of investment and for a corresponding enlargement of the community's "propensity" to consume. Increased consuming power calls in turn for higher rather than lower wages. The difficulties, however, of increasing real wages have led to consideration of other methods of raising the share of wage earners in the national income.

*Saturday and Sunday pay provisions of union agreements in 12 war industries.* Washington, U. S. Bureau of Labor Statistics, 1942. 15 pp.; mimeographed. (Industrial relations problems arising under war production, Memorandum No. 1.)

### *Wartime Conditions and Policies*

*Compulsory labor service.* By Buel W. Patch. Washington, Editorial Research Reports, 1013 Thirteenth Street, NW., 1942. 17 pp. (Vol. 1, 1942, No. 7.)

Reviews experience in the United States during World War I and present requirements in a number of foreign countries.

*Military service of employees, January 1942.* New York, National Industrial Conference Board, Inc., 1942. 32 pp. (Management research memorandum No. 10.)

The report brings down to date an earlier study made in September 1940. The significant changes in company policies regarding drafted employees has been to extend the military leave of absence to include the training period, instead of being only for the original period of conscription, and to discontinue group insurance in view of the opportunity afforded selectees to apply for National Service Life Insurance.

*Minorities in defense.* Washington, U. S. Office of Production Management, 1942. 19 pp.

Gives the duties and chief officers of the following major units organized to handle problems concerning the participation of minorities in the defense program: Committee on Fair Employment Practice; Negro Employment and Training Branch, Labor Division, OPM; and Minority Groups Branch, Labor Division, OPM.

*Prize winning foreman essays (1941).* New York, National Industrial Conference Board, Inc., 1942. 28 pp. (Management research memorandum No. 11.)

The nineteen prize-winning essays submitted in a contest sponsored by the National Industrial Conference Board in the fall of 1941, for foremen or other persons who directly supervised rank and file workers, are printed in this report. The essays outline methods to be followed by industry in meeting the defense problems of the country.

*Swords and ploughshares.* By Donald H. Davenport and Dal Hitchcock, U. S. Bureau of Labor Statistics. (In *Harvard Business Review*, Boston, Mass., Vol. 20, No. 3, spring number, 1942, pp. 307-314.)

A discussion of the problems of transition from war to peace. The work of the Division of Post-War Labor Problems of the Bureau of Labor Statistics is described. It is stated that the core of the post-war problem is assurance of continued full employment after the conversion of industry from the production of war goods to a peacetime basis. The article also discusses the collaboration of the Bureau of Labor Statistics in this field with other agencies such as the National Resources Planning Board.

*Machinery conversion, 1918, including a partial list of industrial conversions.* Washington, U. S. Bureau of Labor Statistics, March 1942. 13 pp.; mimeographed.

*Labor scarcity and labor market policy under an armament program in Germany and Great Britain.* Washington, U. S. Social Security Board, Bureau of Employment Security, 1942. 105 pp., charts; processed. (Employment security memorandum No. 18.)

Traces the development of the armament programs in the two countries, the problems arising as labor shortages occurred, and the measures adopted to secure the most effective use of manpower. The section on Great Britain also deals with the response of labor in the effort to increase production and the part organized labor played in establishing policies and working standards.

*Retail trade in wartime Britain.* By H. J. Mellon. (In *Economic Record*, National Industrial Conference Board, Inc., New York, March 1942, pp. 80-86; charts.)

Discusses the reduction in retail-trade goods and profits, and the controls introduced, and gives figures showing the vulnerability of the nonfood retail trades to withdrawal of labor.

## Women in Industry

*Women in war work.* By Kendrick Lee. Washington, Editorial Research Reports, 1013 Thirteenth Street NW., 1942. 16 pp. (Vol. 1, 1942, No. 4.)

Deals with employment of women in industry in Great Britain and the United States during the first World War, and in Germany, Great Britain, and the United States during the present war.

*Women workers in Argentina, Chile, and Uruguay.* By Mary Cannon, U. S. Women's Bureau. (In *Bulletin of the Pan American Union*, Washington, March 1942, pp. 148-154; May 1942, pp. 246-251. Illus.)

Deals with the present social situation of women who work in Argentina, Chile, and Uruguay, the types of work in which they engage, wages as compared with those of men, working conditions and welfare work in factories, extent of employment of women, legislation for the protection of working women, low-cost housing, etc.

*Present aspects of employment of women in Germany.* (In *International Labor Review*, Montreal, March 1942, pp. 286-296.)

Summary of the report on a series of conferences organized by the German National Labor Protection Office from November 1940 to March 1941, and held in 15 industrial centers of Greater Germany. The kinds of work upon which women should not be employed and their hours and other conditions of employment are discussed. There are also sections on conditions for employment of women in mines, the inauguration in July 1941 of a 6 months' period of wartime auxiliary service for women supplementary to the regular year of compulsory labor service, increase in wages for unskilled woman workers in the public services, and suggestions for part-time employment for women.

*The Women's Trade Union Leagues in Great Britain and the United States of America.* By Gladys Boone. New York, Columbia University Press, 1942. 283 pp., bibliography. (Studies in history, economics and public law, No. 489.)

This book is the first completely annotated historical analysis of the National Women's Trade Union League of America, an organization whose object has been to raise the economic status of women by helping them to organize into trade-unions. The history is preceded by a chapter on the Women's Trade Union League of Great Britain, with emphasis on the great similarity in the form of and methods used by the two organizations.

### General Reports

*Annual report of Governor of Alaska, fiscal year ended June 30, 1941.* Washington, U. S. Department of the Interior, [1942?]. 67 pp.

The report includes the recommendations of the Governor for tax reforms and for improved educational and recreational facilities, and information on work of the Civilian Conservation Corps in Alaska, progress of the Matanuska Valley colonization project, health conditions, and social-welfare activities.

*Annual report of Governor of Hawaii, fiscal year ended June 30, 1941.* Washington, U. S. Department of the Interior, [1942?]. 83 pp.

The report covers the progress and development of the Territory during the fiscal year 1941, including data on labor conditions, education, health services, and housing.

*Forty-first annual report of Governor of Puerto Rico, fiscal year ended June 30, 1941.* San Juan, 1941. 170 pp., maps, charts.

Data are included on education, health, pensions, employment, wages, and working hours in Puerto Rico.

*Introducing Australia.* By C. Hartley Grattan. New York, John Day Co., 1942. 331 pp., maps, illus.

An outline is given in this volume of Australia's history, politics, industry, agriculture, labor situation, and cultural life, as well as the part the country has played in the two World Wars and its orientation in world affairs.

*Economic problems of modern India, Volume II.* Edited by Radhakamal Mukerjee and H. L. Day. London, Macmillan & Co., Ltd., 1941. xxxvii, 522 pp.

The section of this volume devoted to industry and labor includes chapters on organization of cottage industries and handicrafts, industrial labor, cost of living and wages, and economic planning.

Volume I (edited by Mr. Mukerjee and published in 1939) contains the first three parts of the work, covering, respectively, background information, agriculture, and trade. The section on agriculture includes a chapter on the Indian cooperative movement.

*Japan's industrial strength.* By Kate L. Mitchell. New York, Alfred L. Knopf, 1942. 140, ix pp.

The study was written under the auspices of the International Secretariat of the Institute of Pacific Relations. It covers industrial trends in Japan from 1931 to 1936 and wartime industrial developments from 1937 to 1941. Industrialization in Formosa, Korea, and Manchukuo is also described. The appendix contains an appraisal of the industrial resources of Japanese occupied areas in China.